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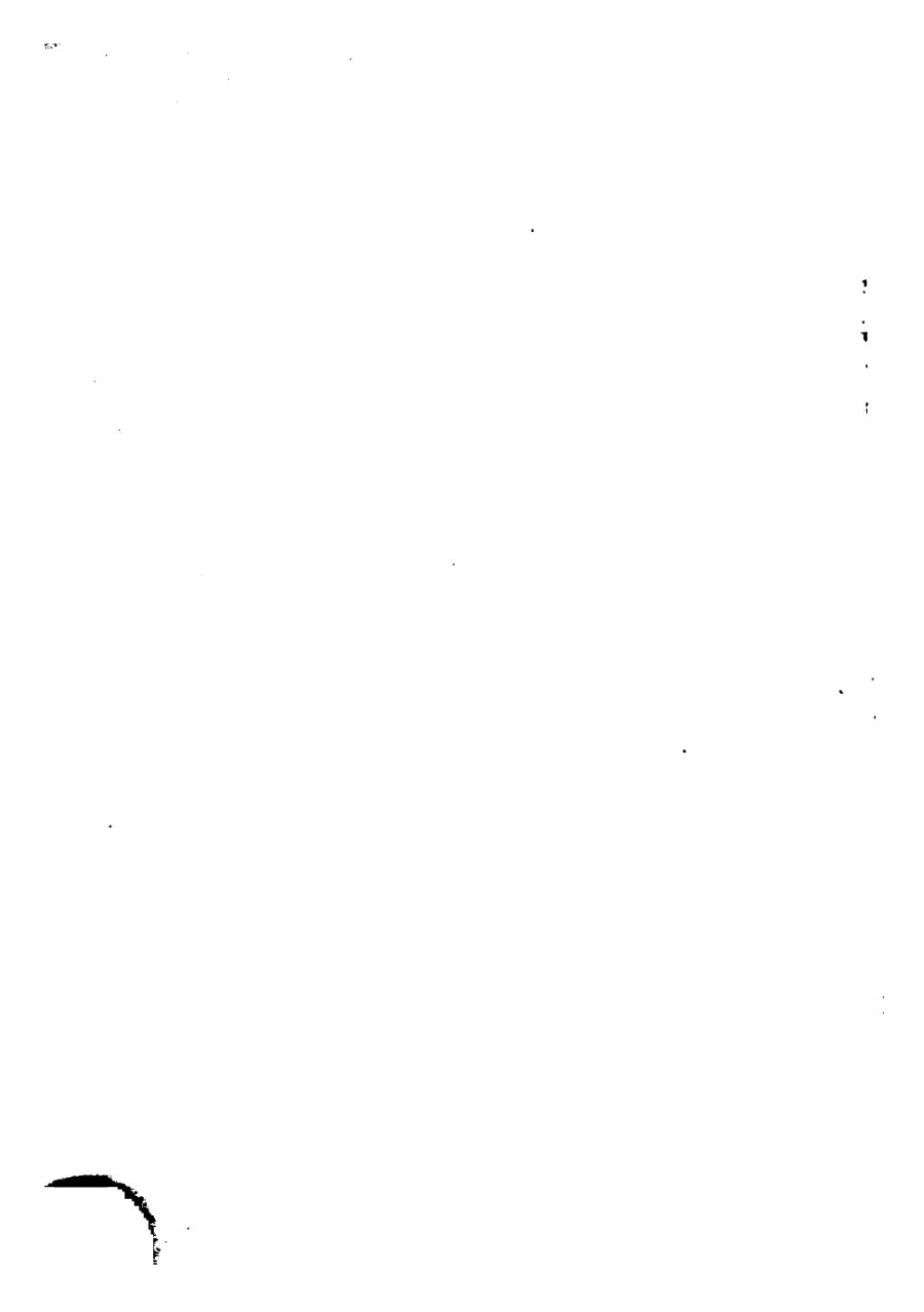
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THE GRAPHIC ARTS

**A TREATISE ON THE VARIETIES OF DRAWING,
PAINTING, AND ENGRAVING.**

'There is a great advantage in thorough technical training which must not be overlooked. When a man learns anything thoroughly it teaches him to respect what he learns. It teaches him to delight in his task for its own sake, and not for the sake of pay or reward. The happiness of our lives depends less on the actual value of the work which we do than on the spirit in which we do it. If a man tries to do the simplest and humblest work as well as he possibly can, he will be interested in it; he will be proud of it. But if, on the other hand, he only thinks of what he can get by his work, then the highest work will soon become wearisome.'

Prince Leopold's Speech at Nottingham, June 30th, 1881.

THE GRAPHIC ARTS

A Treatise

ON THE

VARIETIES OF DRAWING, PAINTING, AND ENGRAVING
IN COMPARISON WITH EACH OTHER
AND WITH NATURE

BY

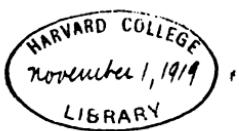
PHILIP GILBERT HAMERTON

AUTHOR OF 'ETCHING AND ETCHERS,' 'A PAINTER'S CAMP,' 'THOUGHTS ABOUT
ART,' 'LIFE OF J. M. W. TURNER,' 'THE INTELLECTUAL LIFE,' 'CHAPTERS
ON ANIMALS,' 'ROUND MY HOUSE,' 'THE SYLVAN YEAR,'
'THE UNKNOWN RIVER,' 'MODERN FRENCHMEN,' ETC.

BOSTON
ROBERTS BROTHERS

1889

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Edwin F. Gay

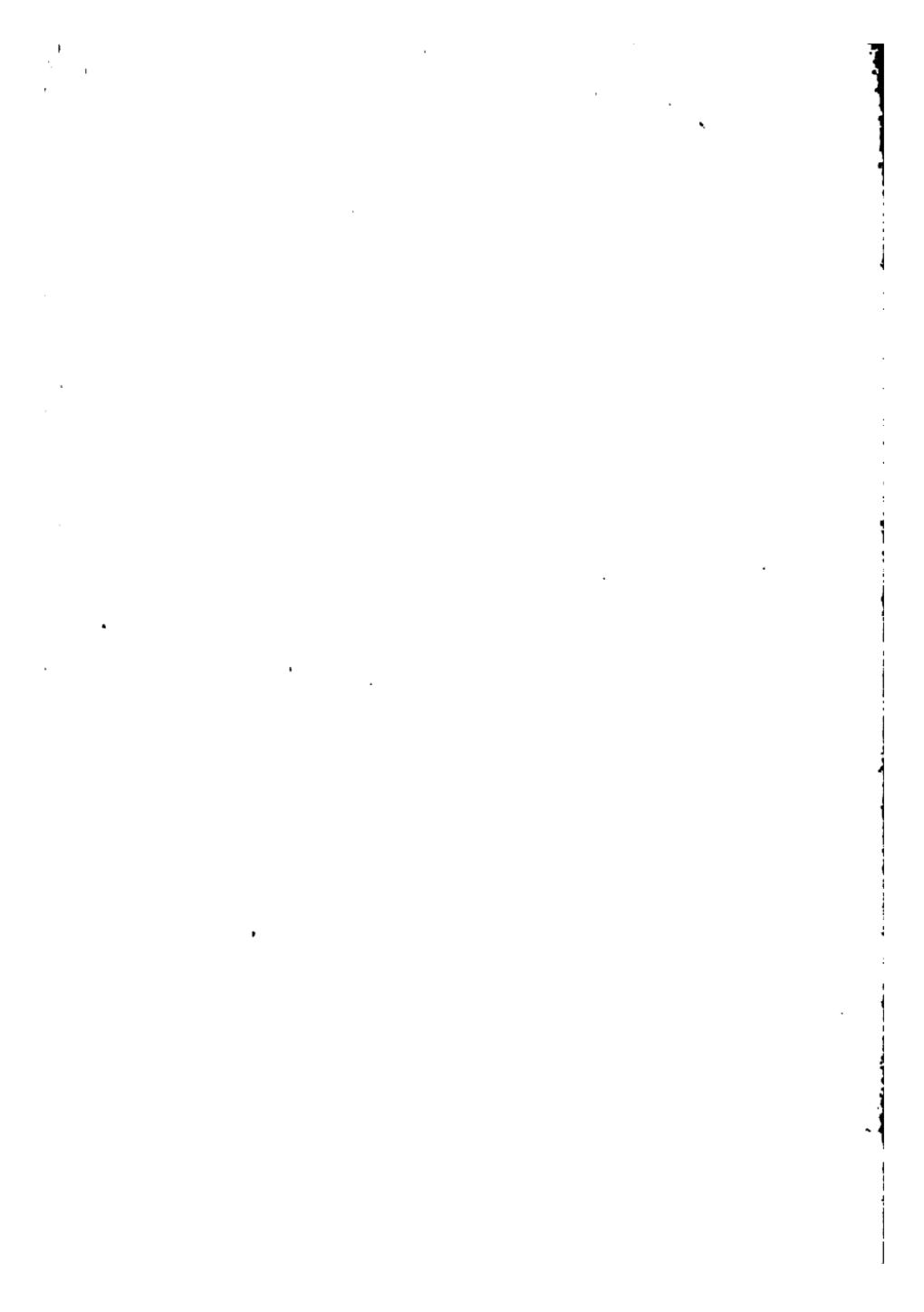
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TO

ROBERT BROWNING.

I wish to dedicate this book to you as the representative of a class that ought to be more numerous — the class of large-minded persons who can take a lively interest in arts which are not specially their own. No one who had not carefully observed the narrowing of men's minds by specialities could believe to what a degree it goes. Instead of being open, as yours has always been, to the influences of literature, in the largest sense, as well as to the influences of the graphic arts and music, the specialised mind shuts itself up in its own pursuit so exclusively that it does not even know what is nearest to its own closed doors. We meet with scholars who take no more account of the graphic arts than if they did not exist, and with painters who never read; but, what is still more surprising, is the complete indifference with which an art can be regarded by men who know and practise another not widely removed from it. One may be a painter, and yet know nothing whatever about any kind of engraving; one may be a skilled engraver, and yet work in life-long misunderstanding of the rapid arts. If the specialists who devote themselves to a single study had more of your interest in the work of others, they might find, as you have done, that the quality which may be called open-mindedness is far from being an impediment to success, even in the highest and most arduous of artistic and intellectual pursuits.



PREFACE

TO THE AMERICAN EDITION.

ON sending the sheets of this work to America, for an edition to be published at a moderate price and without illustrations, a question had to be considered which was not quite so simple as, at first sight, it appeared. There were a great many references to illustrations published in the first expensive English edition, and it seemed, of course, to the author, as it would to anybody else, that these references ought to be expunged when the engravings or reproductions no longer accompanied them. On further consideration, however, there appeared to be strong reasons against this course. The book contains very numerous references to works of art which cannot possibly be presented in its pages, to such things as mural paintings and other works in full colour which cannot be properly reproduced; and as the reader will not be able in every case to go at once to the performances themselves, as he will be obliged by distance to take a good deal on trust at all events, and to accept the author's conclusions at least provisionally, there seems to be no reason why the illustrations to the *édition de luxe* should not be referred in the cheaper editions just as freely as any other absent works of art. It being decided, then, that the references should be maintained, the only remaining doubt concerned the form of

them. The strictly accurate and correct way would have been to say each time, "the reader may see an example of this in an illustration by such an artist engraved or reproduced by such another artist and published in the columbier octavo edition of this work," but the most inexperienced of writers would feel the awkwardness of saying that a hundred times over. The conclusion was to keep all allusions to illustrations precisely as they stood in the first edition. The reader may find this a convenience if he has access to an illustrated copy.

The book is dedicated to a poet instead of being dedicated to a painter or other workman in the graphic arts, but there is an especial fitness in the dedication. I mean it as an expression of a desire that the graphic arts should be better understood by men of high literary culture than they have generally been hitherto, and also that those concerned in them should look to literature with more sympathy and understanding. It would not have occurred to me to dedicate this book to Scott, Wordsworth, or Byron, if I had written in their day, because they lived outside of the Graphic Arts just as an illiterate artist may live outside of literature ; but Browning is not an outsider, and it is pleasant to think of a man who by sympathy and knowledge is one of ourselves, one of the artistic fraternity, as it were, and yet at the same time a poet of great power and a thinker whose influence is steadily increasing. There is nothing to be more lamented than the isolation of one form of culture from another, when it implies a real privation of light, and it was a characteristic of the age that immediately preceded ours to isolate men in separate cells of knowledge, each of which had its own little window looking out upon the world in its own special direction. It was not so in the great age of the Renaissance, and it is much less so at the present date (1882) than it was thirty years ago ; but we remember the time in England when artists were gener-

ally illiterate and scholars equally ignorant of the fine arts and the natural sciences. At the present day one of the best linguists in our country is President of the Royal Academy, one of the most imaginative poets is a famous painter, and some of our most eminent men of science are men of great literary power, with a wide knowledge of books and a lively interest in art. I do not dispute the economical doctrine that division of labour is good for mechanical production, but I feel perfectly certain that the concentration of all the faculties upon one art prevents the mind from seeing the arts in their true relations to each other. Suppose the case of a painter, hard at work every day at his own specialty in painting, I should say that unless he takes care to keep his mind open by looking at the other varieties of art and taking an interest in them, he is very much exposed to the danger of narrowing his mind to the range of qualities visible on his own canvases. He may judge of other graphic arts unfairly, as a Spanish peasant goes to his own church, and believes that Protestants are not Christians.

The object of the present volume is to show as truly as possible the different kinds of usefulness which belong to the different graphic arts, without unduly extolling or depreciating any of them. For my part, I love them all, and each of them has in my eyes its own dignity, derived from association with the labours of great men. The more we know of what they have done in these arts, the more the arts themselves become honourable in our estimation. It will be found, too, that they throw light upon each other, and that there are many close analogies, not suspected at first, between processes apparently very different. The truth is that the variety of processes is not so great as appears. Although the range of the graphic arts is extensive in their dealings with nature, their technical range is limited. In painting whatever is founded upon one of the two opposite

principles of transparency or opacity ; all engraving whatever is founded upon line or mass. All the graphic arts together are founded either upon naturalism or some kind of conventionalism, and by the time we have studied them enough to recognise old friends with new faces we are constantly meeting with principles long ago familiar.

PHILIP GILBERT HAMERTON.

JANUARY, 1882.

PREFACE

TO THE ENGLISH ILLUSTRATED EDITION.

THE lesson brought home to me by the studies which have led to the production of this volume, is, that we ought not to despise any form of art which has been practised by great men. If it was good enough for them, it is probably good enough for us. Able artists have often accepted quite contentedly what may be truly called limited means of expression, but they have never tolerated a bad art.

This reasonable degree of trust in the practical sense of great artists has not always been general. A well-known instance of the contrary is familiar to us in the history of etching. For a long time before the modern revival of that art it was treated with a degree of contempt which is hardly imaginable now. People could not be induced to look at etchings, no publisher would invest in them, no periodical would insert them, and the general belief of the time was that Rembrandt had practised an art which, at the best, was only a defective substitute for engraving. Surely a little reflection might have dissipated such prejudice as that! Rembrandt was an illustrious painter, a writer not only of great mental capacity, but of consummate technical skill, which he exhibited in remarkable variety. Besides this, he left behind him a great number of admirable drawings in

ink, in bistre, and other materials, quite sufficient to prove, if he had never produced such a thing as a picture at all, that he was a draughtsman of extraordinary powers, both mental and manual. Now, pray consider the extreme inherent improbability that such an artist as Rembrandt by these means had proved himself to be would have spent nearly half his time on a bad art! He must have known, at least as well as we do, what are the qualities and powers which make an art available as a means of expression for such a genius as his, and, having made the necessary practical experiments, he must have come to the conclusion that etching possessed them.

If we, in the present day, are liable to any wrong judgments about other arts, like that of our immediate predecessors about etching, we have a ready means of correcting them. We have simply to inquire — the inquiry need not be long or difficult — if the art that we feel inclined to despise has been practised by great artists. If it *has* been practised by them, not as a mere experiment, but as a pursuit, our contempt for it is either without grounds or on wrong grounds, we are probably blaming it for the absence of some quality which is not necessary to the expression of artistic ideas. Let us take as an example the simple and primitive-looking art of drawing with common pen and ink upon common white paper. Most people do not think much of such an art, for the materials are very cheap and to be met with everywhere, and the work does not flatter the eye when it is done. Still, it may deserve attention and consideration, for it was practised by many of the greatest artists who ever lived, amongst whom may be specially mentioned these three — Raphael, Titian, Michael Angelo. When we come to look into the matter, we find that the pen, though it does not offer any soft luxury to the sense of sight, is one of the best instruments for the expression of firm, decided, substantial knowledge, and that

is why those great men used it. The lead-pencil is sometimes despised because it is given to beginners, yet it was employed habitually by Turner in the full maturity of his talent; and its predecessor, the silver-point, was constantly in the hands of the old masters.

Some of us remember the time when water-colour was so despised in France that no critic would take it into consideration as a serious art. It was connected, in the popular conception, with the attempts of school-girls, and by an association of ideas in accordance with common mental habits, it was assumed that an art practised by young ladies could not possibly express the ideas of thoughtful and educated men. It would have been equally reasonable to infer that because young ladies used pens and paper for their school themes an experienced author could not employ them for his manuscripts; but reason is powerless against the prejudices of association. The most practical argument in favour of water-colour is, that it actually has been employed by men of great learning (in artistic matters) and great genius. If it had been a feeble art, such men as Müller and Cox would not have resorted to it.

Lithography is slightly esteemed because it has been vulgarised by feeble work, or by work that is manually skilful, but destitute of mental originality. It is also very unfortunate in being frequently represented by impressions from worn stones. It has become a business, and a business not always conducted with a due regard even to a commercial reputation. But surely this unlucky turn in the application of the art has nothing to do with its higher capabilities? It was heartily appreciated by great men in the last generation. If such men as Decamps, Géricault, and Delacroix, practised it or approved of it, we may be quite sure that it is an artist's process, whether it may happen to be fashionable in the present day, or applied to unfashionable uses.

I am told now that woodcut, though popular enough in a practical way as an adjunct to journalism, and a handmaid of scientific literature, is despised by the aesthetic taste of the day. Like lithography, it has become a trade ; careful drawings are often cut to pieces by apprentices, and badly printed afterwards. We may deplore these errors. It is always sad to see good materials turned to unworthy uses, but these misapplications ought not to make us unjust to the art which is pursued unworthily. Is literature always followed with a due sense of its noblest responsibilities and powers? Woodcut can be printed cheaply, so that it is used and abused in commerce, yet it has fine artistic capabilities. It is not a painter's process, because it is too laborious for an occupied painter to undertake it ; but it is a thoroughly sound process, capable of the most various effects ; and it has been encouraged by great artists, especially by Holbein, too delicate a draughtsman to patronise a rude and imperfect art.

The fundamental error in estimating the Graphic Arts is to rank them by comparison with the ineffable completeness of nature. They may be compared with nature ; they shall be so compared in this volume, but only as a matter of scientific curiosity, not at all for the purpose of condemning some arts and exalting others. We who are constantly accustomed to the language — or rather, in the plural, the very different languages — of the graphic arts, lose by familiarity with their meaning the sense of their real remoteness from nature. We forget — we become incapable of properly understanding — what a distance there is between the natural object and the artistic representation. For example, it was the custom of the old masters in many of their drawings to shade in strong, open, diagonal lines. There is nothing in nature like that. It is simply a conventional language intended to convey the notion of shade without imita-

tion, without even the beginning of an imitation, of its qualities. This is a single instance, but I could fill a hundred pages with such instances. If imitative truth were the test of excellence in the fine arts, the greater part of the drawings, etchings, and engravings in our museums, and many of the pictures in our galleries, would have to be condemned without remission. The real test of excellence in a process is this. Will it conveniently—that is, without too much troublesome technical embarrassment—express human knowledge and human feeling? Will it record in an intelligible manner the results of human observation? If it will do this for man, with reference to some limited department of nature only, such as form, or light and dark, or colour, without full natural light, then it is a good art, however far it may fall short of nature in a vain struggle for complete imitation. This is the reason why we value so many drawings by great artists in which they voluntarily bridled the imitative instinct. They restrained that instinct; they pulled it up at some point fixed in each case by some special artistic purpose and by the nature of the materials that they employed. *They* did not share the scorn for limited means of expression, which is one of the signs of imperfect culture, but they looked upon each tool as a special instrument and employed it in accordance with its proper uses, content if it expressed their thought, often not less content if the thought were conveyed by a hint or a suggestion to intelligences not very far inferior to their own.

In our own time an entirely new set of processes have rendered service by reproducing drawings and engravings of various kinds, often with a remarkable degree of fidelity. Some of these processes have been employed in the illustration of the present volume, and great care has been taken, by the rejection of failures, to have the best results which the present condition of photographic engraving could afford. The reader may be glad

The processes of photographic engraving have rendered very great services, especially to students of moderate means who live at a distance from great national collections, but the right use of reproductions must always be accompanied by a certain reserve. You can never trust them absolutely, for you can never be certain that a publisher will be a sufficiently severe critic to reject everything that is less than the best. They are most precious as memoranda of works that we have seen and known, and then the only limit to their usefulness is the danger that the reproduction which we possess may gradually take the place in our minds once occupied by the original which is absent.

sitter for the first sketch mentioned there was a valet, on account of his costume, but he was really a gentleman who had put on an old-fashioned dress. The reader will find him at page 320.

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THE GRAPHIC ARTS.

CHAPTER I.

IMPORTANCE OF MATERIAL CONDITIONS IN THE GRAPHIC ARTS.

TECHNICAL studies have been so generally undervalued that the purpose of a book like this may be readily misunderstood or misrepresented. It may be supposed to deal with matter only, and to neglect the mental element in art, because it is not disdainful of material things. This would be a wrong estimate of its purposes.

In the Graphic Arts you *cannot* get rid of matter. Every drawing is *in* a substance and *on* a substance. Every substance used in drawing has its own special and peculiar relations both to nature and to the human mind.

The distinction in the importance of material things between the Graphic Arts and literature deserves consideration because our literary habits of thought lead us wrong so easily when we apply them to the arts of design. All of us who are supposed to be educated people have been trained in the mental habits which are derived from the study of books, and these habits, as all artists and men of science are well aware, lead students to value words and ideas more than things, and produce in their minds a sort of contempt for matter, or at least for the knowledge of matter, which indisposes them for material studies of all kinds, and often makes them blind to the close connexion which exists between matter and the artistic expression of thought.

In literature, such a connexion can scarcely be said to exist. A writer of books may use pen or pencil, and whatever quality of paper he chooses. There is even no advantage in reading the original manuscript, for the mechanical work of the printer adds clearness to the text without injuring the most delicate shades of literary expression. The quality of paper used by Sir Walter Scott did not affect one of his sentences ; the quality of the different papers which were carefully selected by Turner, for studies of different classes, determined the kind of work he did upon them. Ink and pencil in the hands of a writer express exactly the same ideas ; in the hands of a draughtsman they express different ideas or different mental conditions. A draughtsman does not interpret the light and shade of Nature in the same manner with different instruments. He has to throw himself into a temper which may be in harmony with the instrument he uses, to be blind for the time to the qualities it cannot render, to be sensitive to those which it interprets readily. Even the roughness or smoothness of the substance he is working upon determines many a mental choice.

Of these things a literary education gives us no perception. It even misleads our judgment by inducing us to suppose that substances are beneath the consideration of an artist, as they are outside the preoccupations of an author. Or it may falsify our opinions in another and more plausible way. It may, and it often does, induce people to think that technical matters may concern artists and still be below the region of the higher criticism which should interest itself in the things of the mind, and not bestow attention upon the products of the laboratory, or the processes of the painting-room. As a result of this way of thinking we sometimes hear critics praised for not being technical, and blunders in technical matters, which surprise those who understand the subject, do not appear to diminish the popularity of writers upon art, if only their style be elegant and their descriptions lively and amusing. Technical ignorance appears even to be an advantage to a critic, as it preserves him from

one of the forms of tiresomeness, and leaves him to speak of sentiments which all can enter into rather than of substances which only workmen and students ever touch, and of processes which only the initiated can follow.

It will be my purpose in the present volume to show how mental expression is affected by material conditions in the graphic arts. I shall point out, not in vague generalities, but in accurate detail, the temptations offered by each substance used and each process employed. I shall make it clear in what manner, and to what degree, the artist has to conform himself to material conditions in order that he may best express the thoughts and sentiments which are in him, and, above all, I shall make it my business to show how the choice amongst those thoughts and sentiments themselves, how the expression of some and the suppression of others, may in very many instances be accounted for by the nature of the materials employed. It is only by a thorough understanding of these conditions of things that criticism can lay its foundations in truth and justice. You may write brilliantly about an artist without knowing anything of the inexorable material conditions under which his daily labour has to be done ; you may captivate readers as disdainful of those conditions as yourself by the cleverness with which you can substitute rhetoric for information ; but if you have any real desire to understand the fine arts as they are — if you have any keen intellectual curiosity about them, if you wish to speak with fairness of those who have worked in them — you will be brought to the study of matter as well as to the comparison of ideals. The criticism which professes indifference to technical knowledge is a criticism without foundations, however prettily it may be expressed. It is to the criticism what a cloud is to a mountain — the one a change-vapour sometimes gorgeous with transient colour and bearing, deceptive appearance of permanent form, the other massive and enduring, with a firm front to every wind and a base of infinite deep-rooted in the very substance of the world.

There is a prevalent idea that the study of material conditions is uninteresting — a dull study, not fit to occupy the attention of highly cultivated persons. This idea comes from our curiously unsubstantial education. The training of a gentleman has been so much confined to words and mathematical abstractions that he has seldom learned to know the intimate charm which dwells in substances perfectly adapted to human purposes. There is a charm in things, in the mere varieties of matter, which affects our feelings with an exquisite sense of pleasurable satisfaction when we thoroughly understand the relation of these substances to the conceptions and creations of the mind. This charm is entirely independent of their costliness, and one of the best results of knowledge is that it makes us appreciate things for themselves as no one can who is unfamiliar with their noblest uses. A painter takes some cheap earth which he finds in Italy, such as the ferruginous earth of Sienna ; and it is better than gold to him, for it will enter into a hundred lovely combinations where gold would be of no use. Art does not reject what is costly, yet seeks nothing for its costliness. It accepts the blue of the lapis lazuli, and the colouring matter of the emerald,* but it also keenly appreciates a stick of well-burnt charcoal or a bit of common chalk. Many of the most delicate designs left to us by the old masters were done with the silver-point, one of the simplest instruments and one of the cheapest, as it did not wear perceptibly with use. Here we find artists taking advantage of that blackening of silver by the very tarnish which gives so much labour to servants. The diamond point is used by engravers on metal, who appreciate its marvellous hardness. Ivory is used by miniature-painters on account of its exquisite surface. So influential are substances upon the fine arts that the modern development of wood-engraving has been dependent upon the use of a particular kind of wood, and even on a peculiar way of

* In ultramarine and the emerald oxides of chromium, the first is lapis lazuli in powder, and the second contains the colouring matter of the emerald.

sawing it across the grain, whilst the existence of lithography is dependent upon the supply of a peculiar kind of stone. The metals used in engraving directly affect the style of the engraving itself. The existence of such a metal as copper has had a direct influence upon art, for if there had been none of it in the world a great deal of the best work in etching and engraving would never have been executed. If an artist who had etched on copper took to etching on zinc, the change of metals would produce, after a few experiments, a marked alteration in his manner. Even the degree of fineness or coarseness, in paper or canvas, affects the style of an artist. No one paints in the same way on coarse cloth and smooth panel; no one draws in the same way on rough paper and Bristol board.

The materials employed affect not only the expression of the artist's thought and sentiment, but also the interpretation of nature. Every material used in the fine arts has its own subtle and profound affinities with certain orders of natural truth, and its own want of adaptability to others. One might think that the materials were sentient and alive, that they had tastes and passions, that they loved some things in nature as the horse loves a grassy plain, and hated others as a landlubber hates the sea. It will be a part of my business in this volume to show how these affinities and repugnances operate, and how they affect the interpretation of nature in art, by impelling artists to a selection of natural truth in accordance with their dictates.

After this explanation of my project, I trust that its intellectual purposes are clear. The book will deal with matter, but with matter as an instrument of mind; it will deal with the materials used by artists, but with reference to their various adaptabilities to the interpretation of nature. Seen with this double reference to human thought and nature, the substances shall have to examine have a far higher significance than they could ever possess by themselves. What, by itself, is an inch of strong silver wire? What is it but six-pennyworth of wire? Set it in a holder, let Raphael take it up and draw with

it — draw the Virgin modest and fair, the Child gleeful and strong — let Raphael trace the ideal forms in the dark grey silver lines, and then how noble the metal on the paper becomes !

People reverence carbon in the form of the diamond because it is prodigiously expensive, and they despise it in the form of charcoal because it is so cheap that it can be used for fuel ; but a piece of charcoal and a diamond point are both equally noble in the eyes of an artist, for with the first he can draw very delicate shades, with the second the finest of lines. Even the hair of the camel, the sable, and the badger, may become ennobled in the hands of painters as a goosequill is when a poet uses it, and that unclean animal the hog renders unceasing service to the fine arts by supplying the kind of brush which has done more than anything to encourage a manly style in oil. The importance of instruments in the interpretation of nature and the expression of mind may be realised by simply imagining what oil-painting would have been if the hog-tool, which gives mastery over thick pigments, had been replaced by the camel-hair pencil, which can only be used with thin ones. It may seem, to the ultra-refined, a degradation to great art to owe anything to pigs' bristles, but all debts ought to be acknowledged. The history of art can never be truly or completely written until the influences of such things (apparently humble, yet in reality most important) is fully recognised. The use of this or that kind of hair in brushes has more to do with executive style in art than the most ingenious reasonings about the beautiful.

It may be thought that, as technical matters are very generally known, there is little need for a new book about them ; but to this it may be answered that the existing knowledge is scattered and fragmentary, so that the mere bringing of it together may be a service not without utility. Besides, there is a morphology of processes which has never been traced, and which I desire to trace. I wish to show the close connexion which exists, in principle, between processes so different in apparent results that they are not called by the same names. It may be

an advantage, again, to judge different methods fairly on their merits without reference to changeful tastes and fashions. There is an absolute value in each of the graphic arts quite independent of its relative value with regard to the temporary state of public opinion. The two questions about each of these arts are, 'Can it interpret nature?' and, 'Can it express human thought and emotion?' The answer to these questions in every case is, 'Yes; within certain limits fixed by the nature of the material and the process.' And then comes the farther question, 'What are those limits?' to which this volume shall be as complete an answer as I can make it.

CHAPTER II.

THE DISTINCTION BETWEEN USEFUL AND AESTHETIC DRAWING.

THE Graphic Arts are equally capable of expressing two opposite states of the human mind—the positive and the artistic.

Work done in the positive state of mind has for its single purpose the recording of fact and truth. Work done in the artistic temper *may* record a great deal of truth incidentally, but that is not its main purpose. The real aim of all artistic drawing is to convey a peculiar kind of pleasure, which we call aesthetic pleasure.

What this aesthetic pleasure is, and how it is excited, I shall have to explain later. For the present it is enough to note the separableness of it from simple truth, and the broad division of all work done in drawing into two great categories.

These categories might be called the positive and the poetic ; but the word ‘poetic,’ from its habitual association with the highest kind of imaginative creation, is too exalted for our present need. There is a great deal of clever, and by no means despicable artist-craft, which does not in the least deserve the name of poetry, and yet which is at the same time clearly not the outcome of the positive spirit. I therefore prefer the word ‘artistic,’ which will readily be understood to mean a kind of mental activity which plans and schemes for aesthetic pleasure.

It is most important that the distinction between these two motives of draughtsmen, truth and delight, should be constantly

remembered as a distinction which always exists ; but if we desire to think justly (which is the one purpose of all critical study and reflection) we must keep the distinction in our minds without hostility to either kind of drawing. Both are worth pursuing ; both have rendered welcome service to the world ; and it is only a proof of narrowness to think contemptuously of either. Unfortunately it often happens, since narrowness is the commonest of all the failings of men, that those who are strongly imbued with the love for measurable and ascertainable fact have a contempt for the purveyors of aesthetic pleasure ; whilst, on the other hand, those who are gifted with the genuine artistic temperament,—the temperament which flies to aesthetic pleasure as a bee to a bank of flowers, despise the slaves of truth for their deadness to exquisite sensations.

Of the two kinds of drawing, that of fact and truth has hitherto been the less appreciated. So keen is the general enjoyment of imaginative or fanciful art that the simple truth seems spiritless and unintelligent in comparison. It is only since the great scientific development of the present century that severe, emotionless drawing has been produced in a regular and reliable manner by any class of draughtsmen. Even now, with the instructive examples of photography so readily accessible, the feelings and emotions of men are so strongly acted upon by imaginative drawing that it seems to them truer than truth itself ; and they are not only incapable of detecting its want of veracity, but they claim for it, in their enthusiasm, virtues precisely the opposite of those which it really possesses. The misfortune of this is that truthful work, the simple transcript of the facts of nature, does not receive the moderate degree of credit which it deserves. Being without charm it is also without friends. It warms no man's heart ; it awakens no man's enthusiasm ; and whereas the clever artist, who knows how to play upon our feelings by the well-known devices which appeal to the aesthetic sensibilities, gets credit for being truthful, which he is not, as well as accomplished, which he is ; the

simple draughtsman, who draws what is before him, does not always win the trust which is due to his one virtue — veracity. This has been rather painfully impressed upon people who take an interest in these things by the failure of topographic landscape. In the decade between 1850 and 1860 a distinct attempt was made, as an experiment, to draw the forms of landscape as they really are, and to colour them for truth rather than for beauty and charm. No intelligent artist or critic ever desired that the simple transcript of nature produced in this manner should supersede the cunningly arranged landscape which gave aesthetic pleasure ; but it was thought that plain truth might find utterance in painting as it did in literature. It turned out, however, that the most serious and conscientious attempts in this direction were commonly misunderstood. The painters who set themselves to copy nature accurately were supposed to be ignorant of art. The absence of common artifices of arrangement made these men liable to the sort of criticism which blames one thing for not having the qualities of another, as if it were possible to reconcile composition with the truthful delineation of places.

If topographic landscape-painting had little chance in England it had none whatever on the Continent. The one example of it in our National Gallery, Seddon's 'Jerusalem,' would not be tolerated in a Continental collection, it being always understood that the purpose of a picture is not to tell the truth but to gratify the aesthetic desires. The too clear atmosphere, the importunate quantity of equally visible details, and the hopeless ugliness of very much of the material, are so strongly against that picture from the artistic point of view that its proper place is not amongst works of aesthetic art, where it shows to too great disadvantage ; yet paintings of that character, representing scenes of interest with the most strict veracity, would be valuable in their own humble way as illustrations of remote realities. That such art should be denied the right of existence because it is not aesthetic is as unreasonable as it would be to refuse

paper and print to plain narratives of travel because they are not novels and poems. It is well to appreciate the aesthetic qualities of Graphic Art when they are present ; but, when they are not present, it is very desirable that we should be just to the humble merits which often take their place. Accuracy in matters of fact is one of those humble merits, and a very useful quality it is in all Graphic Art which illustrates either contemporary events, or past history, or places which have an interest of their own. The woodcuts in our illustrated newspapers are often fairly accurate, but not always. When they are so the quality is far more valuable relatively to the special duty and function of such newspapers than any degree of cleverness in composition. For example, the Cape mail steamer, the *American*, foundered in mid-ocean in April 1880, from the rupture of the screw-shaft. The weather was calm ; and the interesting point of the whole story is that the captain and other people were as calm as the weather, and that there was no confusion in their proceedings. They first breakfasted quietly and then quitted the ship in the boats, which started in good order with a sufficient sailing breeze and all sails set. These interesting facts were illustrated in the *Graphic*, in plain, truthful woodcuts from sketches by the chief officer of the vessel. A French illustrated newspaper treated the wreck in the grand, imaginative style. In the French artist's vigorous sketch the *American* was tossed in such a terrific sea as only occurs in the most furious Atlantic gales. She was dismasted, and in such a condition of wild and hopeless disorder that it would have been impossible to launch even a life-boat. The artist had appealed powerfully to the feelings, and his sketch proved very considerable rough ability in its way ; but observe how, by missing the facts of the real incident, he at the same time missed its peculiar and exceptional interest, and confounded a remarkable and unique occurrence with the crowd of ordinary shipwrecks resulting from mere bad weather. The example is a striking one, but it is not solitary. The clever artist, who is a very

dangerous person indeed when a record of fact is wanted, comes with his love of effect and composition and is careless about truth of incident and form; yet in all illustration what we need is a trustworthy record. When the Tay Bridge broke down we wanted to know how it had been constructed, and we did not care in the least what the skilful draughtsman on wood chose to imagine concerning the clouds about the moon. So in books of travel, the real interest of illustration lies in the faithful drawing of things that we should not clearly understand from a verbal description, and this can be given without any aesthetic artifice or charm. Drawing of that kind, though without pretension, is as valuable as any honest account of interesting facts in writing, and deserves the acknowledgment which is due to all works of simple utility.

The plain drawing of facts has been undervalued not only in comparison with artistic design, but also, in a different way, by comparison with photography. It is supposed by many that since photography gives very minute detail, and is, in some sort, the fixed reflexion of nature in a mirror, anyone who desires a true record can get it much better by making use of a photographic apparatus than by the most careful study with a pencil. This is one of those cases in which a really well-founded opinion cannot possibly be a simple opinion, easily transmitted to those who have not studied the subject. Photography does, in some respects, give more delicate truth than any draughtsman can, but from its incapacity for selection there are many truths which it cannot state so clearly as they can be stated in drawing, and it often happens that even if the photograph could give them separately, it cannot give them together. Again, notwithstanding all the really wonderful ingenuity which has been employed in making the photographic apparatus portable and convenient, it is still far from being so ready and handy as a pocket-book. But there is one fatal objection to photography in comparison with drawing, an objection which far outweighs all the others, and that is, the necessity for an actually existing

model. You cannot photograph an intention, whilst you can draw an intention, even in the minutest detail, as we constantly see by the drawings made by architects of buildings not yet in existence. This settles the question in favour of drawing, because all constructors require to be able to represent ideas and conceptions which have not yet become realities. Even in the representation of realities, photography is less explicit than a good drawing by a person who thoroughly understands what he has to represent. I may mention, as a remarkably good example of explanatory clearness in drawing, the famous French architect Viollet-le-Duc. The purpose of his immense labours as a draughtsman was not to render the aspects of nature, but to give the clearest possible explanation of substance and structure. His work is, therefore, not to be compared with the work of painters, in which there is generally an attempt to render something of the mystery and effect of nature, and yet, although he did not attempt this, he employed an intelligence of extraordinary acuteness in drawings which every cultivated critic admires for the special merits which they possess. For people whose pursuits are not those of a painter, Viollet-le-Duc (though his work is 'hard as nails,' from the pictorial point of view) would be a much better model than Delacroix.

It is much to be regretted that plain explanatory drawing should not be more generally practised and understood. I remember being told by a French artist, who lived in a provincial town of moderate importance, that there was not a single workman then living in the town who could understand a design in perspective. Mechanical drawings of plans, sections, and elevations, are, perhaps, more clearly understood by workmen in the common trades; but with reference to these I may express another regret, which is, that they are not better understood in the higher classes of society. It is so easy to explain a lecture by these three devices, and they place within our reach such admirably exact means of information with regard to very such human work, from the construction of a cathedral, or an

armoured battle-ship, to that of a telephone, or a watch, that every educated person ought to be able to understand them without difficulty ; and yet at present you find ladies and gentlemen who can make something out of an elevation, but are puzzled by a plan, and almost irritated by the apparent insufficiency of a section.

It is not intended to devote space to mechanical drawing in the present work, because the writer has not the special knowledge which would be required for any adequate treatment of the subject, and also because, since the purposes of mechanical and artistic drawing are so widely different, their presence in the same volume might appear incongruous. One remark may, however, be made on the subject in passing. Enthusiastic writers upon the fine arts have sometimes brought themselves to believe, in the strength of their admiration for great artists, that their draughtsmanship was scientifically accurate, and could be compared with the perfection of the best mechanical work. This is one of the common errors which enthusiasts are so ready to commit. Perfect accuracy is never to be expected from any artist, though the degrees of deviation from it are infinite ; and we speak of ' accurate drawing ' as I have spoken of it in this very chapter, always with the well-understood reservation that the accuracy is relative and not absolute. Mechanical drawing, with rule and compass, is man's confession of the inaccuracy of his own faculties. If we could draw exactly, what should hinder us from making elevations of steam-engines with a free hand, unembarrassed by these tiresome instruments ?

There are degrees of perfection even in this, the most rigidly exact of all the graphic arts — degrees of perfection that no one can properly appreciate who has not been trained at the mechanical draughtsman's desk. When the thickness of a hair-line on one side or other of the all but invisible point is enough to lead to inconvenient constructive error, it is intelligible that intense care should be required. Let us respect these exact and patient labours with the bow-pen, for without them our

modern industrial activity would not be possible. A locomotive could not be made from sketches, nor even from careful drawings done by the eye and the hand.

A kind of drawing which completely realises the double sense of the Greek word *γράφειν* is the designing of letters for type. The draughtsmen who invent or modify the forms of letters for new founts, display at the same time the accuracy of mechanical draughtsmen, or what very nearly approaches it, and something of the taste of artists. Without a very high degree of accuracy the type would be visibly wrong in its curves, whilst, if the designer had no taste, he would be unable to carry out a dominant principle through all the letters of the alphabet. The matter is more interesting from an artistic point of view than people generally imagine. They fancy that type is made somehow by machinery, and they little suspect by what art and judgment the letters were so cut that they might look well not only in isolation but together. Sometimes improvements, or changes, have gone in a wrong direction. For example, in the last century, and before it, nobody tried to make the letters occupy the same horizontal space, or anything like it; but in the earlier half of our own century type-designers thought the old type too irregular, and by extending the narrow letters laterally and narrowing the broad ones they obtained an appearance of more perfect mechanical regularity at the cost of variety. At the same time they became proud of their skill in cutting fine hair-strokes, and printers were proud of the clearness with which they could print both very thin strokes and very thick ones; hence a kind of type which reached its perfection in M. Plon's establishment at Paris, where the thick strokes were very broad and black and the thin ones as delicate as they could be, the paper used being as white and as smooth as possible to show the clear cutting of the type to the best advantage. No doubt the effect of clearness was obtained, but the system had the great artistic defect that the thick strokes were importunate and intrusive when the reader was near enough for the thin ones

to be visible. The type-designers of the seventeenth and eighteenth centuries avoided this error. In their designs one part of a letter was not made for one distance and another for another. They also avoided the modern vulgarity of curvature without graceful modulation. The curves in the best old type are sometimes bold and sometimes restrained, just as the letters are sometimes broad and sometimes narrow. In modern vulgar type the curves are bold and mechanical everywhere alike, and the letters as nearly as possible of uniform dimensions. It need not surprise us, then, that in a time like the fourth quarter of the nineteenth century when, whatever may have been our errors, some of us do really seek after what is beautiful, and do really try to improve our taste, there should have been a return to what is now called 'old-faced type,' and a better appreciation of its forms.

The excellence of type-designing, which does not imitate anything in nature, depends almost entirely upon the sense of harmony in the designer. He must feel by a happy instinct what sort of letter will go well with another, and when he decides to modify the shape of one he must feel what modification will be required in another to give the letters that indescribable family likeness which runs through every good alphabet. The curious in these matters will remember instances in which the designer's modifications have not been consistently carried out, and they will also remember other founts of type which appear to have reached an ideal perfection of harmony. The love of artistic consistency which exists even in ordinary human nature is clearly proved by the care with which type-designers and sign-painters always at least try to draw congruous alphabets. The absence of any model for letters in the natural world makes the effort the more remarkable as the designer has real nothing to go by but his own sense of what is fitting. Beside harmony, letters often exhibit marked artistic qualities of other kinds. Some are picturesque and others severe, some are delicate and elegant, others sturdy and massive, qualities which a

all to be found in the highest kinds of painting, sculpture, and architecture, and which add immensely to the interest and variety of nature itself, both in animals and plants.

The alphabets used by different nations clearly reflect the general tendencies of their taste. It is not merely custom which makes us feel a sense of incongruity when we meet with Roman fettters on monuments erected in a Gothic building ; there is a real incongruity between the forms of classic letters and the forms of Gothic architecture and decoration. Gothic letters are picturesque and ornamental, in the same taste as the contemporary architecture and furniture ; Roman letters are simple and severe, like Roman architecture and dress. This is a subject which would bear following out if we had space for elaborate comparisons, but they would require illustrations. Every student of Greek, who has any sense of the charm there is in the mere shapes of letters, must have felt that a part of his pleasure in reading the language was due to the beauty of the Greek characters. When Greek is printed in modern English type it loses half its charm, and this is not merely fanciful, it results from a real artistic difference.

Handwriting is to the drawing of type and the letters of inscriptions what sketching from nature is to the slow and studious drawing of natural forms. All writing, whether careful or careless, is drawing of some kind, though the forms drawn are not natural but conventional. Rapid handwriting is not merely like sketching, it *is* sketching. The same strong marks of idiosyncrasy which are to be found in the sketches of artists exist in handwriting, and there is the most various beauty in handwriting, which is quite distinct from its legibility, just as the beauty of manual style in painting is a different quality from that. It is curious, considering how few people give a thought to these matters, that each kind of handwriting, whether the letters are well formed or not, is generally not less consistent and congruous than the carefully studied alphabets of the type-designers and letter-engravers. People write legibly or

illegibly, elegantly or inelegantly, but they seldom put letters together which do not go well with each other. There are instances of incongruity, but they are rare. In general they are prevented from occurring by the unities of tastes and habits which form the identity of each of us, so that we acquire a personal style in penmanship as we do in the use of language. The writing-master, who disapproves of our personal styles, and tries to impose upon us his own *norma* to correct our personal deviations from his ideal, does precisely what narrow criticism does in the fine arts when it tries to set up a fixed model of style.

Useful drawing of objects does not altogether ignore effects of light, but it uses such effects for its own purposes, taking more or less of them as they are required simply for explanation. The outline of an egg is merely a flat oval, but if shade is used the full shape of the egg is explained. In mechanical drawing shade is very frequently needed for explanations of this kind, and it is used accordingly, in a formal manner, there being no necessity for giving it any artistic quality, or any delicate resemblance to nature. Burnet, in his treatise on the Education of the Eye, showed conclusively how valuable the shadows cast by the sun may be for explaining the forms of objects which are only partially seen. He gave a figure which would only have represented a sudden rise in a road, had it not been for the cast shadow, which revealed the existence of the three arches of a bridge, the arches themselves being quite invisible to the spectator. Artists have often amused themselves and the public by making a cast shadow tell part of the story of a picture.

Local colour (the difference in degrees of dark between one hue and another) may often be explanatory in useful drawing, when the object is to exhibit the employment of different materials in construction. For instance, if an architect were drawing a pavement composed of white, black, and red marble, he might give the two first with their own strong contrast, and represent the red by a grey shade of its own degree of depth. Colour is

often employed in useful drawing simply for explanatory purposes. When this is done there is no pretension to imitate natural colouring, still less to produce agreeable arrangements of hues. The colours used are only employed to make the nature of the materials more intelligible, as pale yellow may stand for deal, yellowish brown for oak, and Indian ink for iron. In the same way a certain conventional representation of texture is often admitted in useful drawing. Viollet-le-Duc was very fond of indicating the direction of the grain of wood, as Albert Dürer did when a piece of woodwork (which he understood as well as a joiner) occurred in one of his engravings.

Whatever is given in useful drawing it invariably omits one great quality of nature, and that is mystery. This is one of the noblest and best attainments of modern artistic drawing and painting, though it was quite unknown to the ancients, and has not been consciously aimed at by the moderns until comparatively recent times. It is a charming and poetical quality in advanced art, expressing man's sense of the infinity which lies everywhere around him ; but it is not of the slightest practical use, and so of course it is rigidly excluded from all drawing executed for purposes of utility, where it would be nothing but an inconvenience. For the same reason useful drawing discards all effect which interferes with absolutely clear delineation ; though, as we have already seen, it accepts certain effects of simple light and shade, which help to make solidity and substance more intelligible.

Drawing for purposes of simple utility might be practised far more generally if its real limits were properly understood. Artistic drawing and painting are so attractive, so splendid, so predominant, that people almost invariably look upon useful drawing as an unsuccessful attempt to reach a kind of art which at the same time more emotional and less exact. A topographic draughtsman, instead of being estimated on his own merits as a truthful describer of places, is judged as if he were an artist who did not know how to arrange his materials. The

traveller who has learned to draw people and things with fair accuracy, but without attractive manual skill, thinks that it is necessary to hand his simple, truthful work to some clever draughtsman on wood to be made into brilliant sketches for publication. The illustrated newspapers waste money without end in putting shade on drawings which, do what they will with them, can never be really artistic,* when the shading, which is perfectly worthless from the aesthetic point of view, prevents anything like delicate truth of line. There are illustrated newspapers out of England which are entirely vulgarised by strained efforts to look artistic, whereas the accurate delineation of truth, without useless and false effect, could be got for less money, and would make the papers valuable as permanent records of contemporary history. Again, if the simple delineation of truth were appreciated at its real value, there is no reason in the world why any daily journal which is printed upon good paper should not insert illustrations of an explanatory kind whenever there was any need for them. Illustration might be ten times as much used as it is if the real purpose of it were steadily kept in view, and not confounded with the purposes of a higher kind of art.

There is another reason why it is desirable that useful drawing should be more valued than it is. At present there are hosts of practical amateurs in every civilised country who, for the most part, are wasting their time in fruitless attempts to imitate the manual cleverness of the popular artists in the exhibitions. There is plenty of useful work in drawing which such amateurs might easily learn to do, and to do in quite a satisfactory man-

* I do not mean that no drawings in such publications as the *Graphic* and the *Illustrated London News* can ever be really artistic, but that there are numbers of drawings necessarily issued in journals of that class which can never rise above simple utility. The fact is, that woodcuts in journals come under two categories, the useful and the artistic. It is a waste of money to try to make the simply useful cuts look as if they were artistic.

ner. Archaeology, topography, and the natural sciences open boundless fields for useful or instructive illustration, whilst all the schools in the kingdom are ready to receive as gifts whatever collections a careful and studious draughtsman might be pleased to form. The true cause of the discouragement of amateurs is not that they are earning no money, since money is not their object, but that they are producing thankless and purposeless work. Useful drawing ought not to be either thankless or purposeless. It is not founded on vanity or pleasure, but on truth. It is to the drawing of great artists what the plain narrative of an honest eye-witness is to the artful inventions of a novelist or a poet, inventions which are devised expressly to act upon the feelings, and in which all the resources of accomplished skill in the use of language are employed to give glad-some or melancholy pleasure and to lull the power of criticism to sleep.

I have written strongly in favour of useful drawing because, from its inability to give aesthetic pleasure, it is always likely to be undervalued by cultivated people. I wish it to be appreciated for itself, for the honest service which it can render to many kinds of knowledge; and I regret that it should ever be compared and confounded with artistic drawing, when each ought to stand firmly on its own basis. You do not expect a good newspaper reporter to have the charm of a literary artist, so why despise a plain truth-draughtsman because his work is without pictorial seductiveness?

The necessity for keeping the two kinds of drawing well separated is felt quite as strongly on the artistic side as on the other. Many artists, especially German artists, have allowed useful drawing to get into pictures, and there it is out of place. Even in engravings such as those of Albert Dürer, it is not really in artistic advantage that the engraver should draw benches and tables with the care and attention of a well-educated joiner; Rembrandt's way of treating furniture is better in great art. The hard manner of Maclise, borrowed (perhaps unconsciously)

from German models, is also useful drawing out of place ; the loose and apparently careless drawing of Josef Israels (especially visible in his etchings) is far better suited to artistic expression of a high order. If a general rule could be stated it might be something like this : The purpose of useful drawing is to explain the construction of an object, but the purpose of artistic drawing is to produce a visual effect to which full constructive explanation may be an impediment. The artist knows as much as the draughtsman, but he ought not to insist upon his knowledge. A poet may have studied geography, but he must not write like a geographer.

CHAPTER III.

DRAWING FOR AESTHETIC PLEASURE.

THE kind of drawing practised by artists of all kinds has for its chief purpose the production of aesthetic pleasure,—a pleasure in which there are the most various degrees of dignity and nobleness, a pleasure which may elevate and strengthen our nature, or corrupt it like a vicious indulgence.

The variety of the effects produced in us by the various kinds and degrees of aesthetic pleasure is enough to prevent any careful thinker from extolling or condemning it absolutely. We ourselves live in an age when a remarkable movement is taking place in the Anglo-Saxon peoples which looks like the awaking of dormant aesthetic instincts. Those of us who have attained middle age were born in a time when beauty was not a subject of any interest to the mass of Englishmen and Americans, and we have witnessed a gradual change in the Anglo-Saxon spirit which is leading it not only towards beauty, but towards a new kind of reasoning about the fitness of things dictated by aesthetic considerations far more subtle and profound than the simple question as to whether an object is beautiful or ugly by itself. Our fathers, the Englishmen of the last generation, knew as well as we do that there are beautiful things in the world — they knew that the best Greek statues and the best Italian pictures were beautiful things which might reasonably be desired by rich men like the Duke of Devonshire, but they did not attempt to bring the common things around them into harmony with aesthetic law. In the present generation very many of us are really trying to do this, trying to arrange the external

and visible things of life in such a manner as not to violate the aesthetic sense of suitableness. Many things which our fathers did we feel to be wrong and out of place. For example, if a great opportunity, like the arrangement and decoration of Trafalgar Square, were offered to us now, we should hesitate about putting the statue of Lord Nelson, like Simeon Stylites, on a column just behind that of Charles I. on a pedestal ; and we might, perhaps, be alive to the necessity for making the National Gallery important enough to hold its own against the buildings in its neighbourhood. It is true that we permit great incongruities, that we allow relative injury to be inflicted on public buildings by huge erections near them, as Westminster Abbey is dwarfed by Queen Anne's Mansions ; but we are at least sensible of the wrong : and in this we differ from our fathers, who did not know that a building could be at the same time injured and untouched. In a word, we are beginning to understand artistic relativity, to feel aesthetic pleasure when it is observed, and aesthetic suffering, or discontent, when it is violated ; whereas the whole conception of artistic relativity, and of any pleasure or pain that might be connected with it, was foreign to our fathers' minds.

The idea of so ordering things that their mutual relations may be pleasing to the aesthetic sense is the foundation of culture in the fine arts. Truth, in these arts, is altogether subordinate. They do, no doubt, include and even require most extensive and subtle knowledge of natural truth, but it is only to avail themselves of it when it happens to be agreeable. A highly cultivated artist knows twenty times as much about nature as the most accurate, matter-of-fact draughtsman, and yet the artist constantly sacrifices truth to composition. He sacrifices it, also, to the idealisation of natural forms, to emphasis in lines, and to the concentration of natural light-and-shade and colour. All these are necessary to the artist, because without them he cannot give that aesthetic pleasure on which his fame and fortune entirely depend. These arrangements and idealisations are, in fact, the

artist's especial and peculiar work ; it is these labours which distinguish him from the simple draughtsman.

Of all my doctrines about art, this doctrine concerning the sacrifice of truth appears to be the most hard to receive. From a sentiment which is respectable in itself, the sentiment of gratitude to great artists for the pleasure which they have given and give still, though they lie in their dark graves, those who love their work can scarcely endure to hear it said that they had not absolute veracity. It is supposed that when a critic points out their deviations from truth he does so with the intention of blaming them, just as in the ordinary intercourse of life it would be an attack upon a man's character to say that his word was never to be depended upon. It is high time that this misunderstanding should cease, and with a view to its cessation I will explain the matter in this place as clearly as I may be able.

The want of veracity in the ordinary intercourse of life is quite justly the subject of severe blame, not only because it is morally wrong, but because those societies where it is habitual are disintegrated by it ; for when no man can trust another it is impossible that the social machine should work harmoniously. Notwithstanding this, the license to say what is not true has always been accorded to poets, who are never blamed for availing themselves of it to any extent whatever, provided only that their fictions be interesting or agreeable. They go far beyond the mere permission to invent fictitious narratives ; they affect, even when speaking in their own persons, and not through the mouths of their characters, all kinds of sentiments and beliefs which are not really their own, when the sentiments and beliefs seem poetical. A Protestant poet does not in the least hesitate about writing like a Roman Catholic if any doctrine of the Church of Rome happens for the time to suit the poetic effect. Sir Walter Scott, though himself an Edinburgh Presbyterian, could affect, for purposes of art, the most absolute belief in the reality of the Pope's spiritual powers, and their heavenly origin :

'The Pope he was saying the high, high mass,
 All on Saint Peter's day,
With the power to him given, by the saints in heaven,
To wash men's sins away.

The Pope he was saying the blessed mass,
 And the people kneeled around,
And from each man's soul his sins did pass
As he kissed the holy ground.'

In this case the reason for the assumed belief is obvious, but it is a purely artistic reason. The poet could not have got so fine an opening on any other terms. The slightest expression of doubt would have chilled all the lines that followed.

Every reader will remember the pretty pantheism which opens the fifth canto of the 'Lay':

'Call it not vain : they do not err
 Who say, that when the poet dies
 Mute Nature mourns her worshipper,
 And celebrates his obsequies.'

Here the poet, after fully indulging his fancy, knew that he was asking rather too much from the reader's power of make-belief, and fell back on a more customary kind of superstition. 'Not that,' he goes on to say, 'inanimate things can mourn, but they are peopled with ghosts who really do mourn, with the ghosts of those whom the poet celebrated, and who are grieved at the loss of his sympathy and of the fame it brought them.'

Not only do poets often affect to be superstitious, they also affect ignorance when it seems more poetical than knowledge. Well-educated modern poets, acquainted with geography, affect antique ignorance of remote lands merely to give them the kind of glamour and mystery which accurate knowledge dispels. Every poet knows that precision of place and date spoils the enchanting effect of poetry; that if places are mentioned at all they had best be those of which no mortal can exactly determine the modern locality, such as the places of the Arthurian legend; whilst the most glorious subjects for poetry in the

events of the present day, such as the tragedy of Queretaro, and Garibaldi's invasion of Sicily, are spoiled for this generation by the too truthful precision of the newspapers. See how gladly William Morris avoids such precision when he begins a tale :

*'In a far country, that I cannot name,
And on a year long ages past away,
A King there dwelt, in rest, and ease, and fame,
And richer than the Emperor is to-day.'*

The poet pretends to be unscientific and not to know too much of history, which has come to him in vague yet powerful and affecting legend, which he is at liberty to mould afresh in the telling. It is a part of his art and craft to assume these affectations which nobody blames in him. To write scientifically would be to abdicate his proper function.

If we do not blame poets for those deviations from veracity which belong to their craft, why should we blame, or be supposed to blame, painters for doing exactly the same thing? And why should painters themselves, and their admirers, be at such needless pains to prove that they are true still, after criticism has pointed to their deviations from nature simply to show *what art is*, and not in any hostile spirit? There is nothing wrong in a painter's arbitrary treatment of his subject, but critics do wrong when they attribute to him a merit which he does not possess. The object of every painter who is really an artist is to awaken aesthetic emotions. If he does that, no matter at what cost of truth, his purpose is attained, and all that can be fairly said against him for not being truthful is, that when his deviations from the truth of nature are too glaring they attract our attention and prevent us from enjoying those aesthetic emotions which we desire. It follows from this that as the public to which the painter addresses becomes itself more advanced in the knowledge of natural truth he must give as much more of it as may be necessary to satisfy the spectator, but not in the least from any moral obligation ; the real reason being that he has to

keep the purity of aesthetic emotion, which is of the most extreme delicacy and always liable to be disturbed by questions of a scientific character, foreign to its nature. For the same reason the wisest artists are careful to avoid, when they can do so, the painting of too much truth, because the public cannot understand more than a limited quantity of it ; and the doubts and questions raised by excess of truth are just as injurious to emotional effect as those awakened by its deficiency. If this statement of the case is fair, as I believe it to be, the reader will now see clearly how little praise or blame can properly be attached to mere truth in the works of artists, except so far as it may reveal knowledge or ignorance. An artist is not bound to tell the truth with his pencil or brush, but he ought to know it, so as to have it ready on occasion. It seldom happens that a departure from truth is injurious to a drawing or a picture when it is the result of deliberate determination, but it may be fatal when the result of ignorance. In ordinary life deviations from truth are pardoned when the speaker knows no better, but severely blamed when he lies deliberately. The fine arts are subject to another law : in them the wilful falsehood is usually the exercise of the artistic faculty and the involuntary misstatement an evidence of insufficient education.

It may seem that in thus combating the vain superstition about the truth of artists I take away one of the greatest sources of interest in the fine arts. There can, indeed, be no doubt that the best way to get a complete though half-illusory enjoyment out of the fine arts is to feel the emotions they excite, and to believe them to be truthful at the same time. I well remember the delightful enthusiasm with which I fully believed, in youth, that the enchanting scenes of Turner, especially in his 'Rivers of France,' were faithful portraits of actual localities,—an enthusiasm much more complete and entire than my present admiration for the craft of the artist coupled with absolute unbelief in his topographic fidelity. Yet, on the other hand, if a more perfect knowledge of the devices of art brings us to a

condition of distrust as to its representation of facts, we come to possess a far keener and deeper appreciation of the artist's subtle wisdom and skill, and of the thoughtful labour bestowed on work for our enjoyment with so little ostentation that the most of it is concealed. Our admiration is transferred from one quality to another. We believed that artists were truthful, but after having discovered our mistake we find a compensation in a new pleasure, the aesthetic pleasure : the delight in beautiful or grand arrangements in art independently of any previous occurrence in nature.

The doctrine that artistic painting is done for aesthetic pleasure, and not for truth, is met by artists themselves with various answers, of which I will select three, the strongest and best.

Some say, 'We paint truth, but the ideal, and not the visible, truth.'

The reply to this is, that as all artists have different ideals, there is no such thing as any ascertainable unique ideal which can be properly called ideal truth ; whereas we *have* ascertainable actual truth (not ideal) in the reality of the nature which surrounds us. Ideals are not one, but many and contradictory ; therefore only one of them, at the most, can be true. For example, if Turner's ideal is the true one, that of every other landscape-painter of any originality is false.

Again, some artists say, 'We paint things, not as they are, but as they might be.'

The desire to paint nature as it might be is laudable, but no artist of any great composing power adheres to it in practice. The temptation to transgress the bounds of natural law is constant. For example, we very frequently find two systems of lighting in the same picture, and the perspective, if carefully examined, will reveal the existence of two or more points of ht. One of the commonest licenses is to make rays of light, e the Irishman's gun, shoot round a corner, that a shade may be too uniform. Colour and effect, in nature usually very scattered, are purposely concentrated.

Lastly, some artists say, 'We do not paint truth of fact, but truth of impression.'

If this rule were adhered to it would produce, though not literal truth in pictures, yet still a certain mental truthfulness in artists themselves. The modern French sect of 'Impressionistes' have tried, in spite of ridicule, to carry the theory out in practice. It *is* practicable, but only in sketches, not in large and laboured pictures. If the reader (even supposing him to be highly cultivated) will honestly put it to himself what his impressions really are, he will find that they have all the characteristics of a sketch, that they may, perhaps, be clear and vivid in parts, but only at the cost of extreme vagueness and indecision elsewhere. If such impressions were accurately drawn, and not filled in from other sources, they would never present the appearance of finished pictures. What artists really do with their impressions is this. They often preserve an impression received from nature as the nucleus round which the constructed picture is gathered; but the details of the completed work were not in the original impression. All that can be said is that, when the added details are quite in harmony with the first thought, there is a certain fidelity to the original intention, but this general fidelity is not veracity.

Mr. Harding transferred the measure of truth from the artist to the spectator by his theory that the artist need only give so much truth as the spectator was likely to recognise. This is very much in accordance with my opinion, that the artist should just escape criticism on the score of truth in order to attain his real purpose, which is the production of aesthetic pleasure. I differ, however, from Mr. Harding in my belief that a class of draughtsmen (not artists in any high sense) might usefully employ themselves in giving us accurate information about matters of fact far surpassing our own knowledge. The work of illustration, as I have shown in the last chapter, ought to be reliable in details of construction and other matters *not* already known

Before closing this chapter about drawing done for aesthetic pleasure, I may justly say that the amount of truth contained in such drawing — the general sum of truth — is often very great indeed, even when mingled with much fiction and involuntary error. Nothing is more wonderful than the inexhaustible depth of the knowledge possessed by great artists. The more we learn ourselves, the more we find that they knew long before us. The greatest of them are so profound that in comparison with our own science they have almost the unfathomableness of nature. After twenty or thirty years of study we find that we have not sounded them yet, that our lives are not long enough, that most of the things we have acquired painfully were possessed by them easily. An apparently careless hint will often reveal their perfect familiarity with some truth that the modern critic insists upon too strongly because he has rediscovered it and fancies that it is new. Great artists are full of knowledge, but they carry it lightly and are never pedantic. For knowledge, with them, is only a means, and not an end in itself — their end is aesthetic pleasure. To know the truth clearly, and yet to reveal only just so much of it as the occasion requires — to possess it for themselves, and yet never to give it to the world unmixed with fiction, unlimited by reticence — this is the characteristic of great artists.

We have still to consider, briefly, the effect of aesthetic pleasure upon the mind.

It is at the same time a culture and an indulgence. The most austere moralists set their faces against it as wholly evil. Others, less austere, admit it in great moderation as permissible, but no more. Another class of moralists has arisen of late years, and these advocate aesthetic pleasure as a substitute for other indulgences. It is better, they say, to look at pictures than to get drunk in an ale-house. There still remains amongst men of business and scholars a certain dread and jealousy of aesthetic pleasure, as being likely to interfere with money-getting or unattractive studies.

What may be fairly said in favour of aesthetic pleasure is that it gives our life a charm which is wanting to science and wealth so long as the aesthetic sentiment is absent. Imagine the case of a rich man, well provided with matter-of-fact information, yet whose life and mind are in all respects absolutely unadorned by art. Imagine him living in some hideous street, with hideous furniture around him. Let it be granted, if you will, that he is so dead to the beauty and charm of visible things as not to suffer from their absence—still, such a man's life would be imperfect and incomplete. He who knows the enduring charm of that visible beauty which is the outward sign and symbol of intellectual beauty, and which, in a world of illusions, is one of the firmest realities, would be content with an humbler fortune, and even with less extensive positive knowledge, if only his life might be passed amidst lovely natural scenery, in pure translucid air, with the sight of fair architecture and noble painting. Many have found in the unfailing quiet pleasure which these things afford, and in the elevation of mind which they favour, a consolation and a compensation for the neglect and indifference of their contemporaries. Many an artist who has failed in the race for fame has found happiness in the glory of nature and in the masterpieces of those men of genius whom, if he could not rival, his studies had at least taught him to appreciate.

The only real danger in the love of aesthetic pleasure is that, by seductions the more tempting that they seem so innocent, it may diminish our combative power, make us less energetic in politics, commerce, and war, above all, less resolute morally, less disposed to put up with what is unpleasant when we ought to put up with it. For the fact remains that aesthetic pleasure is an indulgence which increases our sensitiveness to many disagreeable influences, and makes us try to avoid them, whereas it may often happen that our plain duty would take us into the very midst of them. The keen delight in lovely natural scenery is accompanied by a shrinking from ugly places, which disqualifies us for living in them even when we ought. The love of

art indisposes us for going far away from it, and yet most of the hard work in the world has to be done in places where there is neither architecture nor painting. This, and the loss of time in dreaming about beauty, are the principal dangers of aestheticism, but every pleasure in the world is evil in its excess or in its perversion. Surely we may grace our lives with the charm of art, and yet keep them dutiful and energetic.

Artists themselves incur far less risk of weakening the moral fibre by aesthetic indulgence than simple lovers of art, because nobody can become an artist without submitting to long toil and bearing up against hope deferred. The discipline of practical art is quite as much moral as manual. Good work is not only the result of natural cleverness, but of a training in the virtues of industry, docility, and self-restraint. To labour on till the hair is grey, often through decades of disappointment, to be always humbly trying to do better, to be still at school in the maturity of life and have your skill called in question and your knowledge denied by those who have not a twentieth part of either — these are conditions which require a degree of moral firmness all the greater that the artist gets no credit for it: Nobody will believe that his work is *work*, yet, happily for himself, it is both labour and discipline. Pursued actively, the fine arts have little of the character of an indulgence; it is the languid, passive enjoyment of them which may become harmful. The enervated connoisseur in *The Woman in White* could not have borne the strain of a day's work, but he could sit in his easy chair and taste, in his feeble way, the wine that the much-toiling artists had grown for him in their vineyards.

CHAPTER IV.

EDUCATIONAL INFLUENCES OF THE GRAPHIC ARTS.

WE have seen that drawing may be done either for truth or for aesthetic pleasure ; that illustrative drawing of all kinds ought to be done for truth, and artistic drawing for pleasure, not so much the pleasure of the artist himself (for to him his production must always be a labour and a discipline) as the pleasure of the spectator. We have now to consider the connexion of these two very different kinds of drawing with education.

Useful, or illustrative drawing, is invaluable as an assistance to literary or verbal explanation. By itself it is not of very great use. Imagine, for example, how limited would be the interest of an illustrated newspaper if only the cuts appeared, absolutely without words. We should not know, and if there had been no literary explanation of similar matters elsewhere, we should not be able even to guess, to what personages or incidents the woodcuts referred. A king or an emperor, unless he actually wore a crown upon his head, would be to us simply an officer in uniform, or a gentleman in civil dress. Men of the highest intellectual distinction, of the most splendid fame, would appear simply as human bodies with more or less intelligent faces, and more or less well-fitting clothes. Landscapes, in which remarkable events had just happened, and which owed all their interest to such events, would represent only so many acres or square miles of the earth's surface. Appearances very frequently depend for all their interest upon our knowledge of something which the appearance does not in the least convey, and conse-

quently which a graphic representation of the appearance would equally fail to convey.

This truth was 'borne in upon' me many years ago by a certain scene in the Highlands. Imagine a lovely afternoon in summer, a noble lake asleep in its basin, with only the slight silvery disturbance of faint local breezes, and on one side of this lake a fair bay, sheltered by a rocky promontory ; just one of those places which a poet or a painter would choose for delicious dreaming — a place where he might forget life's hard realities, and live, for a golden hour, in harmony with the divine beauty of the world. I am not describing the place from imagination but from clear memory, and not from general recollection only, but from its aspect on one particular day. I remember how painful the smiling beauty of the water was to me that afternoon. Why painful ? Because a young man, whose parents lived in a lowly, thatched cottage hard by, had been swimming in that bay in the morning, and had been seized with cramp and drowned, and his body lay down in the deep water below that beautiful surface. The graphic arts could not tell you that. The most skilful painter could only give you the visible beauty, whilst missing the invisible tragedy, and so the whole painfulness of the scene would be lost to you. Perhaps the artist, if he desired to impress your mind with a vague sadness, might accomplish it by a picture of grey and melancholy weather, under a rainy sky, with 'wan water' rippling against the cold, hard rocks ; but the more melancholy he rendered the appearance of the scene the farther would he wander from its true significance. What affected me was the indifference of nature to the fate of man, it is *that* which touches us far more closely than any fictitious sympathy of sad-coloured cloud or sighing wind. The cottage

seemed peaceful in the pleasant sunshine, but the light knew nothing of the human sorrow there !

Again, in the description of character, graphic art fails for a ~~far~~ reason. It can only describe what is visible, but the ~~ths~~ of character lie far below the surface. In all highly

civilised societies the deadliest hatreds are clothed with outward courtesy, and the most vicious natures appear decent and well conducted. The painter can, of course, make hatred and other bad passions visible, but in so doing he misses the main point, which is the deceptiveness of appearances, the quiet success of well-disciplined hypocrisy. And even when there is nothing that can be properly called hypocrisy, when we do no more than simply not expose our thoughts and feelings to the public gaze, when we innocently and honourably keep, as it were, the key of our own house, there are truths about our innermost feelings which literature, even the simplest prose, can tell easily and clearly, whilst they entirely escape the most subtle revelations of line and colour.

Another great defect of the graphic arts is, I will not say an absolute incapacity for narrative, but certainly an awkwardness and clumsiness which make these arts almost unable to tell any sequence of events without the help of verbal explanation. The best example of painted narrative which we possess is Hogarth's 'Marriage à la Mode,' but without the elaborate titles of the different scenes we should not quite perfectly understand the story; and even as it is, at the best, it is but a few pages torn here and there out of a novel. The largest historical picture is but a single page of history.

The effect of these deficiencies on the educational value of the graphic arts is very considerable, and I do not wish to underrate it. They amount to this, that when truths are contrary to appearances they cannot be represented, and that when the sequence of events is at all intricate or elaborate the graphic arts cannot, of themselves, explain it. These are most serious objections to anything which is proposed as an instrument of education.

Again, the graphic arts are often most inconveniently compelled to go beyond knowledge. I hold it to be one of the greatest conveniences of literature, as a means for imparting information, that the writer is never really compelled to say more

than he knows. This is because literature has the resource of general expressions, and in the graphic arts there are no general expressions. If the reader will go back to some incident in his own recollection, separated from the present by some distance of time, he will find that he can state it truly, but not draw it truly ; and that the truth of his verbal statement is due to that excellent quality of words by which they permit us to keep within our knowledge. Going back as far as I can in memory, I remember meeting a man on a road when I was a child, and the man stopped and spoke to me very kindly. I can go a little farther in precision, and say that the man was a gentleman ; farther still, and say that he was an officer. This is all I know of him now, for the little incident occurred forty years since. Try as hard as I may, I cannot recall his face. I clearly remember what he said to me, but that is not to our present purpose. This is a true account, because I am allowed to use general terms ; but I could not draw the incident truly, because I should be forced to give the officer a face, yet have not the slightest recollection of his face.

Just in the same way the human race remembers things said to it, or done for it, long ago by superior persons, of whose visible features it has now lost all recollection. The historian can narrate these incidents truly, because he is never compelled to portray : the painter is under compulsion to give specific forms, and gives them when they cannot be true.

Even when the features of one or two persons principally concerned in an historical scene are known to us the subordinates are unknown. In the most interesting scenes of all, the principals themselves are unknown. The more seriously an artist attempts to paint the life of Christ the more painfully will he feel the necessity for painting another person who is only a model or an actor like the modern Christ at Ammergau.

The graphic arts are very nearly useless for historical instruction except when the artist had himself actually been an eyewitness of the scene represented, and even then he requires

great self-denial to tell plain truth, as the scene, however splendid, is almost sure to be much less artistic than that which an artist's imagination would have invented. Mr. Prinsep's great picture of the 'Proclamation of the Queen as Empress of India,' is a case in point. The scene itself was gorgeous in the extreme, but Mr. Prinsep would have made a much more pictorial work if he had been at liberty to use his imagination. With all its splendour, and notwithstanding the number of its figures, the picture is formal and meagre : faults that every able artist avoids when he has his own way.

The graphic arts may be of great use for archaeological illustration when there is no necessity for truth of incident or for the portraiture of persons. For example, an artist who combines archaeological knowledge with the needful technical skill, may show us how the Greeks or the Romans lived with a vividness far surpassing our own unaided imagination. So much archaeological knowledge is accessible now, after the laborious researches of specialists in every branch, that most of the details of costume and ways of living are ascertainable ; and if the artist has imagination enough to clothe these dry bones with life, and throw himself heartily into the past, he may give our sluggish minds an invaluable help and stimulus. Not only should such an artist be well acquainted with details of furniture and costume, but he should be able to feel and render the permanent natural characteristics of the countries where the ancients lived. The classical school of David, in France, failed in its attempt to revive the past of Greece and Rome through archaeological ignorance and blind indifference to atmosphere and landscape. In the works of Alma Tadema, the most careful study of antiquarian detail is united to an artist's vivid recollection of the colour and sunshine of the South ; so that his Romans are not only dressed in their own costumes and surrounded by their own things, but they live in Italian light and breathe Italian air.

The advance of general culture tends to put archaeological

painting in the place of historical incident-painting, and from the educational point of view the change would be desirable. Historical painting, as it was understood until very lately, is a most unsatisfactory art unless it is considered exclusively as picture-making. I mean that historical pictures might be well composed and richly coloured, but they gave wrong information. They might be hung in galleries as examples of clever painting, but it would have been worse than useless to hang them in schools as a means of public instruction. Archaeological pictures, on the contrary, which aim simply at the most truthful possible revival of past aspects of human life, which show how a Roman lady went shopping, how Roman gentlemen reclined at meals, how their shady gardens and cool houses looked in a Roman summer, how the pitiless thousands gazed down into the arena whilst the gladiator lay bleeding on the sand, or the Christian virgin stood pale as she awaited the spring of the panther ; pictures such as these are a powerful help to instruction. They supply exactly what our idle imaginations need. It is a heavy labour to reconstruct from verbal descriptions what the eye has never beheld. The painter undertakes this labour for us, and evokes visions of the past which if not always absolutely true are still a far closer approximation to the reality than anything we are able to imagine without his aid. Out of the dead and ticketed collections in museums, out of the dust of ruins, and from scattered passages in old books, he reconstructs, with the help of the light and life still to be seen on the earth, the life which is seen no longer.

We have observed that the graphic arts can only deal with the visible, and that when there is a contradiction between the appearance and the reality, when the invisible reality is of importance, the graphic arts fail from incapacity to explain it. We have also seen that they are often inconveniently compelled to go beyond accurate knowledge, and so become inaccurate, when what is really known is too general. There is nothing in graphic art corresponding to the word 'animal' in language.

You cannot draw a creature which may be either a man, a porpoise, or a chameleon, nor a plant which may be either *quercus robur* or *draba verna*. We have seen that the want of general terms makes the graphic arts awkward and inconvenient to use for many didactic purposes. Their inefficiency in narrative has also been fully admitted. Their great use for archaeological illustration has been acknowledged. We have not yet touched upon their greatest weakness as a means of instruction, which is, that they cannot reason.

I am far from sharing the Philistine belief that the training of an artist does not develop the reasoning power, for I am well aware that artists constantly exercise it with regard to their own work, and often with remarkable keenness and subtlety. At the same time it is impossible to shut one's eyes to the incapacity of graphic art for reasoning with the spectator; and this, from the educational point of view, is a very serious incapacity indeed. Mathematical studies hold their place in education because they develop this special power of reason; but the reasoning process is always carried through in language, and the diagrams are only illustrations by which the process could not be followed without the help of words. It will be understood that with this incapacity for argument, painting is not, nor can it ever be, the chief educational power which must always be either speaking or writing. Even drawing done for educational purposes only, and not for pleasure, can never be anything more than an illustration of oral teaching, an assistance which every wise educator would gladly welcome, and which is far too much neglected; but museums full of drawings could never teach our children if the voice of the master were silenced, and the printed page withheld from them.

The most earnest advocate of the graphic arts must be content, then, to accept for them a secondary place in education, but a secondary place is very different from *no* place.

Our fathers simply excluded the graphic arts from the education of gentlemen. These arts were admitted in feminine

education, but with reference only to a mild kind of aesthetic pleasure, not as an exact discipline. Were our fathers in the wrong?

They do not seem to have reasoned or thought about the matter. Classics and mathematics occupied their available time, and the desire for thoroughness in these was enough of itself to indispose them for anything else. The idea of thoroughness always makes men accept limits to their mental activity. We see this constantly in the professional spirit.

So far as we are able to understand the state of our fathers' minds with regard to the graphic arts, it appears to have been simply a state of preoccupation. They were preoccupied with other matters. It had been settled by the conventionalism of the time that drawing was not a necessity, but an ornament, or what was called an 'accomplishment,' and the most manly and substantial kind of education was thought to be better without ornaments and accomplishments. Cardinal Newman, in his book on *University Education*, expressly cautions young men against the supposition that drawing can cultivate the mind. He begs them to remember the distinction between education and accomplishments, and tells them not to forget that drawing is only an accomplishment.

Of late years other influences have been at work, and it is believed by many that our forefathers made a mistaken estimate of drawing—that they undervalued its educational power. It is believed now, by an increasing number of able and influential persons, that the graphic arts are much more than accomplishments, that they are a discipline, and a discipline not only of the eye, but of the mind. I fully share this belief, and am prepared to give the reasons for it.

The graphic arts act upon the mind in two distinct ways, which answer to reading and writing in literature.

You may study work already done by others. This answers reading. It requires the same attention as reading, and when the painter is imaginative, it requires, like the reading of poetry,

an effort of imagination in the student. The educational effect of this kind of study is principally to make us more observant. We notice things in nature, as Browning tells us, when we have seen them painted, which without that aid we should never notice at all. But besides making us observant of what is within our reach, the graphic arts give us clearer conceptions of what lies beyond it. Past times and distant countries are, by their help, made, as it were, visible for us. Intricate details of construction, which could not be understood from verbal descriptions alone, are made perfectly intelligible by illustration. Literature itself has gained greatly in recent times by the study of drawing and painting. Some of the clearest modern writers — Thackeray, Théophile Gauthier, William Black, William Morris — have acquired from the graphic arts some of the good qualities which make their writings what they are; and many others, amongst whom Browning stands first, have shown so true an interest in these arts, that it may be presumed they have found mental nutriment in them and not amusement only. It is not possible to estimate the extent to which we, the people of the present day, are indebted to drawings and paintings done by others for the clearness of our ideas of things. Thanks to them, not a few of the great personages of history are, as it were, persons whom we have really seen. Thanks to them, the life of Italy, France, Spain, Germany, and Holland, has been recorded for us ever since the invention of oil-painting, not so fully nor (except in the case of Holland) so accurately as it might have been, but still with a clearness far surpassing the possibilities of our unaided imagination. Even the England of the eighteenth century lives for us still in the works of Reynolds, Gainsborough, and Hogarth. So keenly are all intelligent people now sensible of the capacity of graphic art for this especial service of giving clearness to our conceptions that the feeling of gratitude for what it has done is often lost in regret for what it has neglected, or was not in time to do. What would Christendom give for a set of authentic and faithful pictures of the life of Christ, not

graceful compositions like those of Raphael, nor ethnological and archaeological efforts like well-intended modern attempts to recover the irrecoverable truth, but real portraits of the Master and the disciples as they sat together or walked by the lake in Galilee? The strength of the desire to have the past portrayed for us is proved by this, that rather than go without any illustration of the narratives which most deeply interest them, people will pay for pictures constructed (as they are well aware) without any authentic documents. Even in the most truthful of these representations, aided by the exactness of modern research and the facilities of modern travel, the most important portions of the work, the faces of men whose portraits are unattainable, are as far from the truth as ever.

Drawings and pictures not only help our culture by giving clearness to our ideas of visible things, they also help it by stimulating the imaginative faculty in us.

Imaginative activity in the student is necessary to successful study of all kinds. It is especially necessary in the study of literature, for without it the student only follows sequences of words and observes the application of grammatical rules. With it, he follows the thoughts and conceptions of his author. Unfortunately, however, the imagination is often sluggish, and needs an external stimulus, which may be given in various ways. The most influential Churches employ the fine arts to stimulate the religious imagination, and enable the believer to get out of the vulgar surroundings of house and trade and rise to a higher region. The Church of England, for this purpose, employs music and architecture chiefly, but does not absolutely exclude painting. The Church of Rome and the Greek Church employ painting lavishly. All students of literature might have recourse to graphic art for the same reason. It gives wings to the mind. picture seen in the heart of Manchester may carry us in an instant to the isles of Greece and the

‘Laughing tides that lave
Those Edens of the Eastern wave.’

Only the imaginative mind, aided by the labours of painters, can ever quite fully emancipate itself from the tyranny of the present and the immediate — the ugly street, the dull atmosphere, the busy crowd. Without such aid the world is only what we see from our own windows.

Besides carrying us instantaneously to the remote in time and space, the graphic arts, by their action upon the imagination, have a constant tendency to increase the delicacy of our perceptions. They produce an endless succession of very various emotions, seldom strong enough to be actually painful, yet often verging on pain ; seldom so pleasurable as to rival the joy and delight of our very happiest moments, yet reflecting and recalling them as planets reflect sunshine. These gentler fictitious emotions which the arts excite in us are an exercise for our feelings and prevent them from sinking into apathy. No one who enjoys and appreciates the graphic arts in any large and comprehensive sense can be dead or dull in feeling. His thoughts cannot be without tenderness or pathos ; he cannot close his mind against either the gladness or the sorrow of his fellow-men. It is not the splendour of painting, the rich colour and gorgeous accompaniment of gilded frame and palace wall, which make us proud of the influence of art, but the vastness of its sympathies with all humanity and with creatures inferior to humanity. Nothing is too humble for its loving observation, nothing too strong or terrible for its fearless scrutiny. One great artist will paint a poor old woman, laden with sticks in winter, coming alone wearily through the wood, so that you want to be there and carry the burden for her ; another will paint Julius Caesar marching at the head of his legions ; and both Caesar and the old woman are quite equally within the all-embracing range of art. It has introduced peasants into drawing-rooms, and Dutch boors, with their humble pleasures of pipe and pot, into the most exclusive houses. If there were a personal, conscious Muse of Art, she would smile in quiet self-congratulation at these victories over human apathy.

and pride. She would chuckle to think that Jean François Millet, of Barbizon, had made somebody pay six thousand guineas to see how two ignorant French peasants could say their evening prayer in a potato-field.

If the graphic arts, through the work of others, educate us in knowledge of things and in sympathy with mankind, they have another educating power when we actually practise them ourselves. This is clearly proved by the high degree of intelligence attained by many artists who have received little education outside of their art itself, and who very seldom, and never for long together, place their minds within the educating influences of literature. Practical art has so strong a tendency to take possession of its man that it leaves, in many cases, hardly any possibilities of culture beyond its own limits. A few painters of exceptional gifts may, like Rubens and Leighton, distinguish themselves as linguists ; a few, like Cooke, may have a taste for science ; here and there a distinguished artist may have passed university examinations or written a successful book, but most artists confine their serious mental activity to the practice of their profession ; and it is a remarkable proof of the educating influence of art itself that these men, whose general education is so limited, should so often have the subtlety and delicacy of perception which belong to extensive culture. This, however, need not surprise us when we look deeper into the matter ; for the chief business of all culture is to enable us to distinguish differences in spite of resemblances, and this every artist is constantly doing in his own work. Although he deals with appearances, he cannot represent even the appearances faithfully without considering much that lies below the surface ; and as art is not by any means mere ocular imitation, but an intellectual analysis first, and a calculated synthesis, full of ingenious compromises, afterwards, it affords a most valuable training in the two great mental exercises of discrimination between things which exist already, and the invention of things which are to be brought into existence. This is enough to account for the

indubitable fact that artists have a degree of culture quite beyond what might be expected from men whose minds are so little exercised in scholarship and science. But besides the constant training in analysis and synthesis, practical art teaches us to consider the effect of what we do upon the minds of others, and so gives us the craft which enables men to deal successfully with human nature. This is a dangerous skill,—a skill, I mean, which may be dangerous to the possessor of it, for he may be tempted to exercise it unfairly; but it is one of the results, and one of the most desired results, of culture. '*Les artistes*,' said a distinguished Parisian critic to me, '*sont les plus rusés des hommes.*' They are constantly occupied in the art of winning men by a certain kind of persuasion, in which, although the voice is silent, there are many of the devices of oratory. The painter, like the orator, directs attention most strongly to that which will awaken interest or give pleasure; he keeps in subordination the facts which do not serve his purpose, and carefully leads attention away from them; he does not state truths impartially, but selects and emphasizes them. Every painter who has studied the public taste has found out its vulnerable side, and has learned the craft which all must learn who have to influence mankind.

We said, in passing, that a few artists have shown an interest in science — meaning science outside of art; but in treating of education by drawing we must not forget that the graphic arts include a natural science which has a fair claim to rank with the other natural sciences. If the graphic arts only placed us in communication with the minds of able men, they would still be interesting, like the study of musical compositions; but they do much more than this, they bring us face to face with nature itself and with the mysterious, ever-present Power of which nature is the material expression. This is the reason why the graphic arts are a pursuit of inexhaustible interest. Every pursuit which includes the study of nature, be it even the smallest corner of nature, opens infinite horizons and gives

matter for observation without end. There is a satisfaction to the mind of man in finding itself in contact with natural law which sustains it in labour without any external reward. The mere privilege of studying Nature closely is in itself such a pleasurable form of education that no one would ever willingly leave her school who had once been so fortunate as to enter it. Her most eager and industrious schoolboys are grey-haired men ; her highest prize is not fame or wealth, but the happiness of the awakened intelligence. This may account for the fact, that however modest may be the worldly success of artists and men of science they never seem to regret the time devoted to their studies. When they regret anything, it is generally the interference of intrusive necessities and obligations which have made them, at times, unwilling slaves to what the world considers more serious interests. Even the unsuccessful — those whom there are ‘none to praise’ and ‘very few to love’ — have found a solace and a consolation in the study of nature by which neglect and poverty have been borne more easily. The world may despise them, and critics condemn, but Nature, the infinitely patient teacher, is there still, repeating year after year the same lessons of unfailing interest and beauty.

Finally, practical art has one distinct advantage over all purely intellectual pursuits, which is, that it does not educate the mind only, but also the eye and the hand. I am well aware that a foolish prejudice, which if it is dying out is dying too slowly, considers this training of eye and hand a mark of degradation, because the skilful use of these physical organs assimilates the artist to the artisan. Some people — but not the wisest — are as proud of having idle and useless hands as Chinese ladies are of their useless feet. With these, all reasoning would be waste of time ; but to others who have no such prejudice, I may offer a few remarks in favour of this ocular and manual education. Let it not be supposed that the education which we gain from the graphic arts is by any means limited, in its effects, to the actual practice of those arts themselves. The eye which

is trained by drawing discerns form everywhere and in everything ; the hand which is skilled to use pencil or brush will be generally superior in delicacy and accuracy of touch to the hand which has never been taught. The question, therefore, is not simply whether we care to be skilful in drawing, but whether we prefer a keen eye to a comparatively blind one, and a ready hand to a clumsy one. There are a thousand things to be done in ordinary life, as well as in different trades and professions, in which accurate sight and sure touch are desirable. Surely a branch of education which gives these, not as substitutes for intellectual analysis and synthesis, but in addition to them, has so much the more in its favour.

CHAPTER V.

RIGHT AND WRONG IN DRAWING.

THERE are two leading schools in art criticism which ought to bear separate names, as they are quite distinct in their methods, and in their results. They have never been named yet, but they might be called the School of Censure and the School of Inquiry.

A critic who belongs to the School of Censure begins by assuming a most exalted moral and intellectual position. However young and ignorant he may be, he treats artists *de haut en bas* as prisoners at the bar, who are to receive acquittal or condemnation from the judgment-seat. He has the clearest notions of right and wrong in art. When a work has the luck to please him he pronounces it to be right, and when it goes beyond his little knowledge, or outside the narrow limits of his taste, he says that it is wrong. He does not condescend to explain the reason for these decisions. Irresponsible, accountable to no one, he sits supreme, like the Mahometan Allah, raising some to glory, and he cares not — casting others to perdition, and he cares not.

The School of Censure is founded simply upon personal taste. The best critics of that school are men who honestly and sincerely believe that they have a monopoly of right judgment in matters of art. Sometimes they declare their opinions to be based on moral grounds, which it is wrong to question. He who ventures to think differently is a heretic, and incurs censure not less severe than that visited upon the practical errors of

the artist. There are sins of opinion and sins of practice — that is to say, independence of thought and action.

The School of Censure is founded upon authority — upon the personal authority of the critic ; and authority of that kind, which has no consecration from a superior power, has to be supported by the strongest possible self-assertion. 'I know the right and I know the wrong, this is right and that is wrong ; and if you ask for a reason it is because I say so, that is reason enough from me to you.'

The School of Inquiry follows another method. It repudiates the notion of authority ; it is doubtful of individual judgments, including that of the critic himself ; it examines, compares, offers the results of its examination and comparison, but always as results that may be considered subject to continual revision. In this school, the pride of the critic, his pre-eminence and success, are not to lead the fashion and influence the market, but simply to throw a little more light upon the true nature of the work that is done. It is my desire to be a faithful and dutiful servant and scholar in this school, and to work in strict obedience to its principles.

What, then, according to the principles that I profess, would be the distinction between right and wrong in art ? Clearly not my personal preferences, nor yours ; we may state them just for what they are worth, which is not very much, but we cannot set them up as an authoritative standard or 'norm.' These being excluded, what remains to us ?

In an earlier stage of criticism the ready answer would have been, 'Truth to nature.' Unfortunately, in the present day, we know too much for such an answer to be acceptable. We know that great art is often untruthful, and yet we feel that it is great art still. We know that artists of eminence do not interpret nature in the same manner, that their interpretations are not only partial and incomplete, but even contradictory ; and yet, in spite of these half-statements and counter-statements, we still acknowledge that the celebrity of these artists is deserved,

and that they produced good art, though not a scientifically accurate transcript of nature. We do not say that they were wrong, and we do not say that an accurate transcript would be artistically right.

It has been proposed as a solution of the difficulty that if an artist paints, not what is or has been, but what *might be*, he is right ; but that if he paints what could not possibly be in nature he is wrong.

This theory is captivating because it looks both liberal towards art and respectful towards nature. Unfortunately, it will not bear the only true test, which is, application to works of acknowledged excellence. Those works deviate from what *might be*, from the possible, almost as frequently as they deviate from *what is*, from the actual. To attribute to them fidelity to the possible is simply an instance of a very common form of superstition, which ascribes to some wonderful object virtues which it does not possess.

It has been said that right and wrong in art is simply the distinction between the agreeable and the displeasing ; that if art gives pleasure it is right, but if it is disagreeable it is wrong.

At first sight this theory seems rather more promising than the other, because it recognises the importance of the pleasure-giving element in art ; but then comes the difficulty — to whom is the pleasure to be given ? To you ? To me ? To a French critic, or to a German ? We shall probably receive the most different degrees of pleasure. Again, according to this theory, the same picture is wrong at one time and right at another, according to the changes of fashion, though its own qualities have not changed, unless by material deterioration, for the worse.

The truth is that there is no absolute rule of right and wrong art, easily learned and easily applied. Right and wrong exist in art, but they are always relative. We tolerate a thousand deviations from truth and say nothing about them ; then comes one deviation that we do not feel disposed to tolerate, and we plainly express regret that the artist should have been

guilty of it. Why this exception? The answer depends entirely upon the circumstances of the case, and I could only say why the exception is made with reference to some particular work.

The nearest approach to a general law on this subject is the law of harmony. All good work is harmonious; but, then, unluckily bad work may be harmonious also, in its badness. However, harmony is in itself a great virtue.

We say that a drawing is harmonious when all the parts of it are kept in perfect subordination to a predominant thought and are the issue of a single state of mind. We say that it is wanting in harmony when the artist has not had sufficient control over himself to work as if he were in a single state of mind, but has foolishly or weakly allowed his various moods to spoil the unity of his work. This is the harmony of sentiment, but there is also the harmony of knowledge. If the knowledge exhibited by the draughtsman in one part of his work is manifestly and inconsistently inferior to that exhibited in another, we feel that he ought either to have learned what he did not know, or else refrained from insisting upon what he did know, so as to bring the exhibited knowledge into a state of at least apparent equality.

Again, there is a technical harmony in processes of which we shall have much to say, at different times, in the course of the present volume. Nature may be interpreted almost by any means if only the interpretation be consistent with itself, but any inconsistency, even though it be an addition of truth, is felt to be discordant and offends the artistic sense. A bit of realistic painting, in the midst of a piece of decorative painting, would offend us, and yet the realistic bit would add a certain amount of veracity. On the same principle, the introduction of real things upon the stage is an artistic error, when the reality is surrounded by the fictions of stage scenery.

It follows from this that all the pure methods of drawing, such as silver-point, lead-pencil, pen, water-colour, &c., are comparatively safe; but that the mixed methods, such as silver-point

and pen in combination, are dangerous. In painting, too, there is safety in all the restrictions and limits, and the more limited and restricted the technical method is the safer it is, because the less it is exposed to the danger of inconsistency. When oil-painting was applied to decorative purposes, like fresco, the most prudent artists wisely limited themselves to dead colour, and by this restriction assured to their work a degree of executive harmony which might have been attained with very great difficulty if they had yielded to the seductions of transparent colour also.

Harmony, in the arts of design, is the achievement of a resolute will that goes directly to its purpose and does not allow itself to be tempted in one direction or the other. The greatest temptation of all is the complete truth of nature of which harmonious art only selects what it requires, deliberately sacrificing the rest.

The collections of drawings by great masters prove clearly that so long as a drawing is harmonious it need not be carried far. Nothing is more generally to be remarked in the great men than the firmness with which they could stop short, at any given point, on the road towards natural truth. They could stop short in the simplified line, in the flat shade, in the suggested colour, but wherever they stopped their work held well together.

Besides harmony, a drawing ought to show knowledge ; but here we meet with one of those strong lines of separation which divide art from science. It would far exceed the duties of art-criticism to insist upon knowledge in a rigid and exacting manner. Many fine drawings by old masters give evidence of immature, imperfect knowledge, and yet, in spite of this scientific insufficiency, they are rightly valued as works of art. What criticism ought to do in such cases is to say frankly how far the work falls short of complete science, for fear of giving countenance to the superstition that the great men of past times knew everything, but when the deficiency has been fairly stated there

is no need to condemn the work on account of it. Art does not pretend to scientific perfection ; at the same time it is only fair to add that artists generally put ten times as much knowledge into their drawings as scientific men put into theirs, but then the artist will be vulnerable on some positive, measurable matter. For example, if you set an artist to paint a starlit sky he will get certain truths of effect, such as the gradation of the sky and its relation to the landscape, but he will probably not dot the stars exactly in their right places, a fault very easily detected by an astronomer, who would certainly not commit it. The rule about knowledge appears to be that we may exact from the artist a sufficient acquaintance with the knowledge generally possessed by the artists of his own day. On this principle a young painter who knew no more than Taddeo Gaddi, would certainly, and very properly, be excluded from the Royal Academy Exhibition for not having made better use of his superior opportunities. In landscape, our modern painters know more, and are expected to know more, than the best of the old masters, because the science of landscape has made immense progress since the close of the eighteenth century. Still, notwithstanding these exigencies, mere knowledge, though a virtue in the graphic arts, is not always an essential. There is a great deal of knowledge in fine work, but there is also very frequently, mixed up with it, a great deal of honest, unpretending, simple-minded ignorance.

The notion of right and wrong has been attached to what are called 'industry' and 'sloth' in the fine arts. It has been assumed that laborious finish was industrious, and therefore right, whilst slightness was slothful, and consequently wrong.

Like most theories about goodness and badness in art this doctrine seemed of very easy application, but there were two very weak points in it. In the first place, an artist might be extremely industrious without bestowing any great amount of finish on particular works. A man who rough-hews blocks of marble may be not less industrious than a polisher. If I give

a hundred hours to one drawing, or ten hours apiece to ten drawings, my industry is exactly the same, whilst the intellectual energy and activity will probably be on the side of the ten, as they require ten different mental conceptions. But there is this further difficulty, that no critic can possibly tell with regard to *apparently* slight performances whether they have cost much labour or not. Any tyro in criticism can see when there are a great many details, but the greatest labour of art is not in these — it is often in composition, in tone, colour, expression, and here whatever labour is unsuccessful is concealed by entire obliteration. When obliteration is not possible, as in drawing with pen and ink, the labour may have been bestowed upon previous trials, which the artist is careful not to show, as the labour of a poet is often thrown away (so far as any measurable result is concerned) on verses, stanzas, or even whole poems, which are never sent to the printer. My argument is, that no living human being, except the workman himself, can tell what pieces of work have cost him great labour or little labour. Even finish itself is deceptive, and often seems to contain more downright assiduous toil than was ever put into it; but the greatest deception is on the other side, in the seemingly slight work which looks as if it had not cost an effort, and which incurs strong moral condemnation from critics who have so little understanding of art that they do not know how labour is applied in it.

The virtues common to all drawings that we value are harmony and a fair amount of knowledge, the knowledge required being only that of the time when the artist was alive. So with regard to artifices in the arrangement of materials, a well-informed critic would be dissatisfied with an artist who appeared to be aware of the artifices known and practised in his own day. the same time we admit into our collections many drawings great masters of past times in which these artifices were not resorted to, and we value these drawings in spite of their comparative simplicity and artlessness.

In Mr. Harding's *Principles and Practice of Art*, he severely criticised several old masters for their ignorance of modern rules of arrangement, and reproduced several of their drawings in evidence. He quite succeeded in proving that they were not 'up to the dodges,' if I may borrow a colloquialism of the studios, but the reader will probably agree with me that we have quite enough of these in modern art. For my part, I know these artifices so well, so much *too* well, that I am sick of them, and get back to the simplicity of elder art with a delightful sense of refreshment. I know all the modern rules of composition, which anybody with common abilities can master in a week, but they have never inspired me with any profound faith or abiding enthusiasm.* It is pleasant to think that so many old masters worked in happy ignorance of this critical legislation of the future, but a modern is expected to know about it, and it is not safe for him to be ignorant of it. The right way is to know the rules and pay them a sort of limited and independent attention.

Mr. Harding does not seem to have reflected that in drawing old works over again on modern principles to show the superiority of these principles, he had taken away everything that

* One of these rules is, that every long line should be interrupted, but there are many cases in which obedience to this rule would enfeeble the expression of sentiment. For example, on the first page of the *Biography of Paul Chalmers, R.S.A.*, there is a drawing of 'Montrose,' by Mr. George Reid, R.S.A. In this drawing the town is seen beyond the bay, and the water goes straight across the drawing without interruption. There is no foreground but some desolate land near the river, which flows towards the bay. Any ordinary artist, with a respect for established rules and little feeling, would have made the desolate foreground picturesque by putting something there — a cottage, or a cart, or some trees — to cut across the white line of water; but Mr. Reid, who has the higher artistic sense, knew very well that the whole character of the scene would have been destroyed if he had done such a thing as that, and so he gave the dreary water without interruption, by which apparent absence of artifice he infinitely enhanced the interest of the distant town, a low line of buildings with one dominant tower.

constituted the special interest of the old works, and reduced them all to the level of modern cleverness. In Plate XII. of the *Principles and Practice of Art*, he gave copies of two drawings in the British Museum done in pen and wash : one in the old Italian manner, by Bolognese ; the other in the old Dutch manner, by Rembrandt, and under these copies Mr. Harding gave the same subjects with his own treatment and improvements, thus affording us an excellent opportunity for comparing old and modern work. Mr. Harding's purpose was to show how hard the old drawings were, and how defective the old system (if it was a system) of arrangement ; at the same time he felt himself competent to demonstrate, by the work of his own hand, the superiority of modern craft. Certainly, if modern craft is superior, Mr. Harding was not guilty of any presumption in offering his own skill as an example of it, for he possessed it to perfection ; and I am not finding fault with him on that account. All I desire to insist upon is, that if the old masters had followed modern rules we should have no old masters at all, as, in spite of dates, they would have been essentially modern.

The drawing of Bolognese represents a large fortified country-house, built on the level of a small round lake, and reflected in the water. A road goes half round the lake and makes a sudden turn in the foreground. Just at this turn stand two figures, immediately under the castle. Just behind the castle rises a conical hill with a small fortification on the top of it, and there is another conical hill, still higher, to the right, which has also a little fort upon its summit ; beyond these are distant hills, and to the left a glimpse of sea. The whole is in clear sunshine, probably that of some bright Italian afternoon. The execution is of that simple kind which every student is familiar with in the drawings of the old masters : plain pen line, and a few flat washes one upon another. It is not brilliant execution, and it does not pretend to be, but it quite conveys the impression of clear light and serene peace.

In Mr. Harding's improvement of the same subject everything

is altered to suit the picturesque taste which prevailed in London about the year 1845. The Italian castle was felt to be too square and simple in its masses, and too low down to be effective, so a tower was placed at each end, and an imposing structure, flanked by towers, was made to rise as a central mass behind the principal entrance, the whole building being set upon higher ground. The little fort on the smaller conical hill was developed into a grand feudal castle, the building on the second hill was removed, and the hill itself lowered and altered in shape, so as to make it duly subordinate to the central object. The sky, being too monotonous, was variegated with a fine effect of cloud. The circular lake was replaced by a sheet of water stretching across the picture, and communicating with the foreground by a stream. All lines were carefully interrupted by trees planted on purpose, and the treeless road by the margin of the lake was replaced by a bit of the regular modern sketcher's rustic lane, with a cart on it and two figures, a dark one and a light one, for opposition. The space of distant sea was omitted because its flat line made a triangle with the hills.

This is an account of the improvements in detail. The original drawing, in the modern artist's opinion, was wrong, and he was determined to set it right; but please observe how completely all these alterations have destroyed its character. The little circular lake, with the large formal castellated mansion rising directly from its level, the two curious conical hills with the little forts on their summits, the clear outlines of the distant mountains, and the expanse of level sea, all these things gave to the Italian drawing a strong and peculiar character, which the improver dealt with quite ruthlessly. Such improvements as these are effected at the cost of everything that gives any special interest to the older work. They are like those dreadful alterations by which old houses and gardens are arranged to suit modern requirements; alterations for which there is generally not the slightest real necessity, and which are simply the laborious expression of a want of sympathy with the past.

With the two drawings before me I can only say that the old one has a local character of great originality and interest which quite disappears in the modern one ; and that the very clearness and continuity of its lines are a part of that local character, and recall the bright southern atmosphere, which the modern improver seems to have exchanged for that of the Scotch highlands. As to its defects in composition they are fully counterbalanced in the improvement by defects of an opposite nature. In the old drawing we see that the artist was simple-minded ; in the new one we meet at every step with obtrusive evidence of self-conscious intelligence.

The changes in the new version of the Rembrandt landscape are not so revolutionary, but they are still a substitution of one character for another. In every group of trees, in every elevation or depression of the ground, a modern grace and science are deliberately substituted for the old-fashioned simplicity of the great master. On glancing from one to the other we perceive clearly enough that art had made much progress in the direction of cleverness during the interval, but the progress is not all gain. The old workman did not, like the modern, seize upon every available opportunity for forcing nature into the most convenient shapes, and for getting the most effective contrasts, but there is a dignity in the older work which is better than the prettiness of the modern. We feel that Rembrandt's landscape is serious, and that under certain effects it might be solemn, whilst Harding's is only brilliant.

I have often wished that it were permitted to modern artists to work in the quiet temper of the old masters. I do not say that the old masters produced more learned work than some of the moderns ; but there is clear evidence in their drawings that they were not constantly troubled by the anxiety to shine, or by the necessity to amuse. Some of the very best and greatest of them had in their drawings what we Englishmen value so much in manners — the straightforwardness which does without effort, and makes no personal display. When I com-

pare modern art with modern literature I often see reason to regret that they should not be more upon an equality with reference to the requirement of cleverness. A man may write simply if he likes, and nobody finds fault with him ; but so soon as he draws or paints with the simplicity of a serious old master he is scornfully told that he does not understand his business !

Here we are nearly at the end of the space allotted to our chapter, and we have not yet arrived at any very satisfactory definition of right and wrong in drawing. If there were no right and wrong that would be very sad and discouraging, would it not ? It would be a shock to our moral sense and a damper to our hopes of substantial and unquestionable excellence. Well, I have mentioned two virtues that may be considered certain, namely, harmony, and a certain amount of knowledge. Besides these there are many other virtues, but not one of them, that I can think of, is common to all good drawings whatever. I find after looking at great numbers of drawings that one will have conspicuously one virtue and another another : that one will be sincerely and humbly faithful, another boldly and grandly imaginative ; that one will have exquisite lines and be as flat as a Dutch field, whilst another will have no lines to speak of but be powerfully modelled. I find that serene, sweet-tempered patience constitutes the charm of one man's work, whilst the most fiery impatience arouses me, like the gallop of cavalry, in that of another. Learning commands my respect in some designs ; and then perhaps in the same museum, in the same room, on the same wall, I come upon some bit of loving work done with little science that wins and moves me more than all the learning in the world. And the final conclusion to which all these works of art have driven me is, that they are just like so many living human beings who have seldom more than one or two strong and vigorous virtues to redeem their failings and their faults, and who are esteemed and respected even when they have these. And as the different professions aid the development

of certain special virtues, often at the expense of others : as the soldier strengthens courage within himself, and the physician mercy, and the priest chastity, and the lawyer sagacity, and the merchant prudence, so the different divisions of the graphic arts give separate encouragement to the different virtues of drawing. The burin and the silver-point encourage purity of line, charcoal teaches vigour and truth of chiaroscuro, water-colour the refinements of delicate hues, and oil the force of strong ones ; but as for uniting all these virtues together in one work it ought never to be expected. It is enough for a work of art to have the quality of its own order.

CHAPTER VI.

OF OUTLINE.

THE earliest attempts in drawing were in outline, and outline is used still for various purposes in artistic and scientific work.

Amongst artistic drawings those in complete outline are the simplest. Their two merits, not always compatible, are beauty and truth of line.

Truth of line implies not only truth of modulation but a due observation of the angles at which the lines run relatively to the horizon and also of their proportionate length. When angles, length, and modulation are faithfully observed, the lines are said to be true, although the use of them is in itself a conventionalism. If the lines are right in length and direction the spaces enclosed are sure to have the right shape, so that true line-drawing becomes, by a consequence which need not be sought for consciously, true space-drawing at the same time.

The truth of linear drawing has nothing whatever to do with the thickness of the line, for an outline may be of any thickness provided only it be not variable. If it is variable in thickness then the eye is embarrassed in its choice of one side of the line or the other as the real contour. Again, the shaded side of an object cannot be properly represented by making the outline thicker on that side, though this has often been done, very irrationally. The unreasonableness of it is proved by the consideration that the thick black line comes generally where the shaded side is lightened by reflection. The darkest place on a sphere or cylinder is not at the contour but nearer to the middle.

Outline drawing should, therefore, take no account whatever of light and shade. Its function is simply to detach spaces without giving the time and trouble necessary to fill them up. This will be understood in a moment by a reference to geographical work. A simple line is enough to detach land from sea and one state from another. Nothing in all the range of the graphic arts does so much with so little labour as an outline. A line which any good draughtsman could put on paper in one minute will make the difference between nothing and a portrait in profile.

The value of outline drawing has been very variously estimated by artists. It is not much cared for at the present day, for reasons which will be given shortly. Two or three traditional anecdotes which have come down to us from classic times, and which are too well known to need repetition here, seem to indicate that the ancient Greeks thought more of the simple line than we do, and cared more for the manual skill which could produce it to perfection. In our own time outline is chiefly used as a means of education in elementary drawing, and for architectural and ornamental purposes. Painters hardly ever use it in its purity : they may occasionally have recourse to it as a convenience, but they do not keep to it, in which they are guided by a sure instinct, for outline belongs to an essentially early stage of art, and is not compatible with those habits of sight and thought which are, or ought to be, the habits of painters in an age like ours, when their art is technically complete.

All drawing began, in primitive times, with simple outline ; and the next stage was to fill up the spaces so mapped out with flat colour, but the outline was still preserved for a long time in all its hardness of definition. The first notion of drawing which occurs to man is to mark out the shapes of things in profile with a hard line. He seems to conceive of objects as they were cut out of some flat material, and he thinks that when he has mapped out the contour he has done enough. The notion of modelling in drawing seems to have developed itself very gradually, and even in an age so advanced as our

own every inexperienced student draws trees as if their branches went out to right and left, but never came to meet him. The first thing that strikes us in this choice of outline is, that the use of it involves a degree of definition far exceeding anything usually found in nature, and that it is only after somewhat advanced study that we begin to perceive how rarely natural objects are vigorously and completely detached from each other. The power of seeing things as they actually appear to the eye, with all their confusion and mystery, all their intricacy, all their disguises of accidental light and shade, and colour, is a power which comes to us very late indeed, after a very slow and gradual education. All primitive drawing simplifies and detaches objects, and copies them in its own way, one by one, without any conception of their pictorial relations. So long as the mind of the draughtsman remains in this primitive condition outline is his natural expression ; but when he begins to see more of nature, when he begins to perceive the confusion, mystery, intricacy, which we have just been talking about, outline ceases to be enough for him. He begins to feel that it is true only in a very narrow and conventional sense ; that it is often inevitably false, if drawn at all ; and that even its best beauty, the line of beauty which the skilled Greek artists drew, is still, however graceful, however pure, only a very limited and special kind of beauty, in a world which offers much else for our study and admiration.

The practice of drawing in outline involves a special danger to the student, which ought not to be passed in silence. It concentrates his attention so much on the contours of things that he ceases to perceive what is within them, and then he becomes the victim of a peculiar illusion. He fancies that because he knows the coast he knows the country. So much form can be explained by outline that it gets credit for still more ; and the draughtsman is innocently persuaded that the flat white spaces which his lines enclose actually contain the modelling which he vaguely imagines for them. To ascertain how little an

outline really gives or encloses you have nothing to do but paint a picture from a severe outline drawing, you will then discover that the outline does little more than start you, and that the supplies of material for all your subsequent labour have to be drawn from your own stores of knowledge, or from the activity of your own imagination.

There may, of course, be outline within outline, just as in a map of England we may have the coast-line first, which is the contour, and then the divisions of counties. In the Ordnance map we have even the fields, still in outline, which answer to very minute details in artistic drawing. There is, therefore, such a thing as detailed outline drawing, which appears very full of matter at the cost of little labour, and it is quite true that such drawing conveys more facts than can be conveyed by any other kind of design, with equal clearness, in the same space. It is the right kind of work for topographic purposes; but although Albert Dürer often made use of it for distant landscape it is dangerous in fine art, except for memoranda, and dangerous even for these also unless the artist follows at the same time some other form of study which presents things in their proper visual relations. The practice of Albert Dürer ought not to mislead the modern student. He was a skilful draughtsman in his own way, but not a good example for us to imitate. It is said sometimes that he knew nothing of aerial perspective, but that is only one of his deficiencies, or rather, to speak more accurately, it is only a part of his one great deficiency. He never drew things in their mutual relations, as we see them when we see several things at once; he drew first one thing as if it had been an isolated object, and then another thing, till his paper or plate was covered.

Outline drawing may be practised with advantage as a part of a artist's education for two reasons. The first of these is that, unless we have drawn in outline we cannot know how many delicate beauties are hidden in the subtle varieties of line; the ~~ext~~ is because outline, though hardly ever used by artists

throughout an entire work, is often employed by them in portions of works where it is useful for some special reason. The principal convenience of it is that it will indicate the presence of objects, and give at least a good idea of their forms without involving the necessity for shading, a necessity from which, under certain circumstances, the artist may be glad to escape. Rembrandt set the example, in etching, of using outline in what may seem a partial and capricious manner. It was partial, certainly, but not capricious, being dictated in every instance by the desire to avoid shading in some portion of the plate where shading would have produced some degree of dulness or heaviness. It was one of Rembrandt's artifices to keep large light spaces and large dark spaces in his plates, and it was a convenience to him to put very little shading in the light spaces. This he managed, as in the 'Hundred Guilder' print, the 'Beggars at the Door of a House,' and other etchings, by using almost pure outline in the light parts, or outline in combination with a little shade, purposely kept much slighter and paler than in nature. If the reader examines the work of other original etchers he will find that they often have recourse to the same artifice. It is extremely convenient in etchings of landscape, because there is a great technical difficulty in observing accurately the distinctions between the palest tones in etching, and this is avoided by simply indicating certain objects in outline, a device which explains their presence, yet does not encumber the plate with too many lines.

Before leaving the subject of outline we may take note of a curious fact about the use of the ruler. If you are drawing anything with a straight line in it, such as a new building, you will always find a ruled line quite inadmissible in every kind of picturesque design, though it is the basis of architectural drawing. You may make bulges in your line, or you may tremble and make ripples in it, or you may make it lean to one side or the other, and any of these faults shall be readily forgiven you, but if you are so ill-advised as to rule your line, there is an end to

the charm of your performance. What is curious in this is that the ruled line, in those cases where it is used at all, is generally much truer than anything which the unaided hand can draw. I remember talking about this subject to a French critic, who maintained that the reason why the ruled line was disagreeable was because it was untrue, yet surely in many things, such as the corner of a new house, a ship's mast, or a tightly stretched cord, the ruled line comes nearest to the truth. My conviction is that the question is not one of truth but of harmony. The ruled line is offensive in picturesque drawing because it is seen at a glance to be of a different origin from every other line about it, and so subordinate in fine art is truth itself to harmony, that we all positively prefer visible error to a glaring technical discrepancy. This is the main reason, but there is another, which is, that of all lines those produced with a ruler are the least interesting. The pleasantest of all architectural drawings are the first rude sketches of imagined edifices, in which the lines are never straight.

I do not attach much importance to the often-repeated remark, that there are no lines in nature, by which it is intended to imply that linear art is of necessity inferior to that which is lineless. The rank of the fine arts is not determined so much by their imitative resemblance to nature as by their power of aesthetic and intellectual expression. We know, of course, that lines are not really imitative, as lineless colour may be, but they are most valuable and convenient as a means for expressing human knowledge and feeling, and are not likely ever to be entirely abandoned so long as art shall be an expression of the human spirit.

Outline is used in the very earliest stage of an oil-picture for mapping out the first spaces of the dead colouring, but such outline is of a very rude and simple kind, I mean in modulation. In length and main direction it is carefully studied. All delicate modulations are given afterwards in the painting.

Hard and decided outlines, delicately modulated, are often

used as a basis for decorative painting, and left visible afterwards. They make the work much less costly in time, and as they are not disguised the conventionalism is readily admitted.

Thick black outlines are used to a great extent in large modern wood-engravings for the purpose of detaching figures. In these the outline is purposely overwhelmed by abundant shading, so that few people notice it, but it clears up the subject, of course at the cost of truth, as we shall see when we come to wood-engraving.

These thick outlines in wood-engraving answer to the lines which some modern painters leave visible in their least laborious works. Such lines are a conventionalism by means of which the painter can get through his work more rapidly. There would be no objection to them if they stood alone, because then their conventionalism would be unconcealed, and they might even be filled up with flat tints without contradiction ; but when they are combined with any attempt at complete modelling there is an artistic incongruity, because if the modelling were really complete it ought to be able to detach objects without the help of lines. The truth is that when lines are used in oil-painting other than purely decorative, they are a cheap expedient by which the artist spares himself labour in tonic relations and in modelling. You may separate objects easily enough by an outline, but it requires careful labour to do as much by delicate light and shade.

The qualities of line divide the graphic arts into two great schools, the classical and the picturesque, but these are of so much importance that the linear differences on which they are founded will require a chapter to themselves.

CHAPTER VII.

OF THE CLASSIC AND PICTURESQUE LINES.

IT is the character of linear modulations which determines the difference between the classic and the picturesque line. All drawing comes under one of these two heads—it is either classic in style or picturesque, at least in its main principle, however remote its classicism may be from that of Phidias, or its picturesqueness from that of Rembrandt.

The difference between the classic and the picturesque modifications of line has its origin in two states of the human spirit, by which its sympathies and interests are directed to different objects or to different qualities of the same object.

The classic spirit is animated by the delight in organic perfection, the picturesque spirit by an interest in the peculiarities of character and in the effects of accident and time.

In the two kinds of drawing it *may* happen that the modulations are equally minute. The essential difference is not in more or less of minuteness, but in the relation to organic perfection. It does, however, happen, as a general rule, that the modulations of picturesque lines are more sudden and violent than those of classic design. They are at the same

time more numerous and more distinctly countable. In picturesque design the changes of direction in line are often abrupt and unforeseen; in classic design the changes of direction may be frequent, but they are seldom abrupt, and are so little unforeseen that our knowledge of structure always leads

us to expect them, whilst much of the pleasure derived from that kind of drawing is in the sufficient, yet delicate, satisfaction of that expectation.

It is not desirable, in the interests of culture, that either the classic or the picturesque principle should become so dominant in the modern schools of art as to reign there unopposed.

If the classic spirit reigned exclusively, nobody would draw anything that was not in perfect repair, and this would at once exclude from the materials of art all those things made by men of which the interest is chiefly romantic or pathetic. Besides this, the predominance of the classic spirit would extinguish our interest in humble and homely things. The classical draughtsman is not only indifferent to the world around him, but disposed to regard it with contempt. The most picturesque cities in Europe and all that charming rustic material which occupies such artists as Millet and Frère, would not afford him as much aesthetic pleasure as a bit of antique earthenware, if only the lines of the pot were delicately modulated and pure.

If the picturesque spirit reigned exclusively, there would be an end to all severe study of beautiful form, as that would not be considered sufficiently lively and amusing. Sculpture would fall down to the level of those lifelike statuettes of the fishing population which are sold at Boulogne-sur-Mer, or of the Tam o'Shanter and Souter Johnnie at Alloway. Architecture would be planned and schemed for the artificial picturesque in which all sorts of arrangements are considered permissible if they are quaint and unexpected, and in which artifice tries to gain the appearance of accident. Painting would flourish still, but would confine itself to such material as tumble-down buildings, rough soldiers and peasants, animals, and wild scenery. Nobody would paint the naked figure. Etching would flourish, on condition of avoiding what the painters avoided ; but line-engraving, al-

ready pursued by few, would be absolutely and finally abandoned.

The liberty of individual taste, which has resulted for us from the experiments of the past, has this good consequence, that both the classic and the picturesque principles of drawing are alive and active together. Each is applied according to the taste of the artist and the subjects which he prefers.

The love of ideal beauty and the desire for perfection lead us to the classic line ; a healthy interest in common things leads us to the picturesque line.

Once adopted, each of the two principles gets possession of its man and pushes him forward in its own direction. The danger of studying line for its own beauty is that its tendency is against modelling and against effect. Pursued too ardently it leads back to flat Greek vase-painting, with its clear outlines and flat tints within them. I have even been told by a true believer that all art which goes beyond the firm line and flat wash is debased and degraded art ; that the firm line and flat wash are the high-water mark of painting, and that evanescent lines and modelled surfaces are its ebb and decadence. It is certain that firmness of outline and flatness of spaces are highly favourable to the severe study of linear beauty, whilst the study of surfaces is against it.

Severe students of the classic line have often been unfavourable to landscape, a disfavour which is perfectly natural, because, although beautiful lines are often to be met with in landscape, the interest of it is generally much more dependent upon light and shade, and especially upon colour, than on any degree of linear beauty. As, however, the linear beauty of natural landscape is generally undervalued, I may beg the reader to bear with a few words in its defence.

Linear beauty is found much more in some trees than others, and (as a general rule) more in leaves taken individually, or small groups, than in masses of foliage. The trunks of fine trees, such as the beech and the plane, are rich in linear

beauty ; whilst others, such as the oak, are more picturesque than beautiful. Noble mountain scenery, such as that of Switzerland and Savoy, abounds in lovely lines continually altered by perspective as we travel ; whilst minor hills, and amongst these some of the smallest and least imposing, like those in the south of England, are often exquisite in line. Some of the most beautiful lines ever to be seen in the earth-forms are found in the first gentle undulations between the broad continental plains and the great companies of mountains. Of all natural things, not organized, wind-sculptured snow is the most perfect in outline and in linear markings. It effaces the picturesque irregularities of the earth, and substitutes for them a clean modelling like that of very delicately carved marble, which is sure to present refined outlines everywhere. A great variety of beautiful lines may be found in agitated water, from the low smooth ground-swell, with its uninterrupted regularity of form, to the tossing and toppling breaker. After mentioning a few of those natural things, in which beautiful lines are commonly found, I may add that it is a mere superstition to suppose that Nature's drawing is always beautiful. It is sometimes ugly, and it happens more frequently still that natural lines seem as if some beautiful purpose had been intended and then very imperfectly carried out. It is probably this apparently imperfect realisation of artistic intentions in landscape which makes classical figure-draughtsmen so indifferent to it, as the lines of the nude figure, which they are accustomed to study, more nearly fulfil the apparent intention.

When artists have a taste for linear perfection they do well to devote themselves to the figure, and avoid landscape, not because they cannot find plenty of beautiful line in landscape nature to please and occupy themselves, but because people are so little accustomed to look for beautiful line-drawing in landscape that when it is offered to them they do not perceive or value it. The popular qualities in

landscape are colour first, then texture, composition, and chiaroscuro.

The naked figure, or the figure simply draped, is the only subject in which classic line-drawing fully repays the student. Here the talent of a refined draughtsman is felt and acknowledged; in the other forms of art it is generally thrown away.

CHAPTER VIII.

OF DRAWING BY AREAS.

THIS kind of drawing is largely practised by painters who study from nature with the brush. It differs widely from linear drawing both in principle and practice, and it both springs from and cultivates different habits of sight and thought.

We have seen that if the linear draughtsman made his lines right in length and direction the areas enclosed by them must of necessity be the correct areas, although he may never have given them a thought. If a land-surveyor gets the walls and angles of an enclosure right upon his plan the area will be right also. This is the linear process, by which the area comes right indirectly.

It so happens that in oil-painting there is a great practical inconvenience in adhering faithfully to the linear process, for if the painter draws delicately modulated lines at the beginning of his task, he has to follow them out carefully in all subsequent colourings, which involves most tedious labour, and ties down the artist by so many petty manual restrictions that anything like energy of style becomes impossible for him.

I have had occasion, at the beginning of this work, to remark how closely mental and manual qualities are woven together in the fine arts. Here is an excellent instance. Any high degree of mental energy in an oil-painter makes it unendurable for him to follow refinements of line during all the

repaintings of his picture, so that if he has fire in his soul he will neglect the line during the earlier stages and reserve such attention as he may give to it for the finish. If, however, he neglects line he must still have something to go by, and he finds the necessary guidance in the proportions of areas.

People of limited experience, who have some knowledge of drawing by line but none of the other method, are often surprised when they see an accomplished landscape-painter at work from nature. Let us suppose that he has to paint a cottage with a thatched roof and a whitewashed wall ; he will probably put it in with an initiatory patch of something like straw-colour for the roof, laid on with a large brush, and a similar patch of white paint for the wall. The edges of both these patches will be left almost to chance, without any pretension whatever to linear drawing. In painting them the artist would not begin by the edges but by the middle, and when he had got them into the right state as a first painting, the probability is that any thoughtless person looking over his shoulder would not suppose that there was any drawing in them at all. There might, however, be good sound drawing of a certain kind, as the areas, though not enclosed by delicate lines, might be very nearly of the right proportion in the field of vision. On the other hand, a drawing of the same cottage in most delicate and observant line, might still be a bad drawing, if the artist's attention had been so much given to interesting details of line that he neglected their large proportions and so got his areas wrong. When drawing is delicate and bad at the same time, as it often is, the nature of the badness may be generally defined as a case of incorrectly proportioned areas.

We may lay it down then as a general rule that drawing by areas is essentially the drawing of painters, and especially of figure-painters.

It is still more necessary to a painter of landscape than to figure-painter that he should be able to draw correctly by

areas, and to think in the language of areas rather than in the language of lines, because the intricacy and complexity of landscape subjects make it impossible to draw out all their parts delicately at first. The figure-painter *might* keep to a delicate figure outline ; the landscape-painter *could not* follow minute outlines of foliage or herbage. In the instance just given of a thatched cottage, a perfectly accurate outline would be full of minute details of straw and moss (perhaps also of grass and flowers) which could not be followed from the beginning with the brush without destroying the relations of tone and colour.

As every kind of practice acts gradually upon the mind of the workman, and slowly but surely produces an effect upon his thoughts and opinions, it is always interesting to inquire what the effect is, and how the workman's ideas are modified by the particular thing which he does.

What is the effect of drawing by areas? Does it make painters indifferent to any of the beauties of nature?

To know what the effect is we have only to refer to the school in which it is most practised — that of modern landscape. The effect here is certainly to make artists indifferent to elaborate delicacy of line, and this is a distinct loss ; but it is not without compensation, as this very indifference to line leaves the mind more free to attend to tone and colour, which the landscape-painter finds to be more important. For him, therefore, in spite of a certain loss, drawing by areas is certainly the best method ; and if he can see all areas in their proper shapes and proportionate sizes, his eye is cultivated as it ought to be so far as drawing only is concerned.*

* One of the most unsuccessful landscape-painters, in the world's sense, whom I ever knew, was greatly embarrassed to discover the reasons for his failure, as he rightly considered himself to possess at least as deep a knowledge of nature as his successful rivals. Notwithstanding this, his failure was easily accounted for. Instead of drawing by area and with the brush, he went by very delicate lines, into which he put at

amount of care and study for which nobody thanked him. He loved nature too much, so that it pained him to alter and compose; and the consequence was that his works looked as if he were ignorant of composition. He knew too much of nature also, in a certain sense, which led him to paint rare effects which people could not understand; but of all his errors (errors, I mean, with reference to his worldly success) the greatest was drawing by line. There were beautiful lines in his pictures, but they gave them a look of hardness which made them less liked than far coarser and more ignorant work.

CHAPTER IX.

OF DRAWING BY SPOTS.

THE title of this chapter would have greatly astonished a critic of the last generation, when spottiness was considered simply a vice in painting, and had not been developed into one of the forms of artistic expression.

Methods of execution are good or vicious, according to the degree of intelligence with which they are done. Even spots have been developed, by the skill of clever and observant men, into an artistic language, which has been found of great use for the expression of certain qualities in nature and a peculiar condition of the human mind.

We have just seen how painters may draw by areas. A spot is nothing but a small area distinguished from what surrounds it by some very visible difference of shade or colour. It may be of any shape, and need not be of one particular size, though when going beyond certain limited dimensions it becomes what we should call a patch in oil-painting, or a blot in water-colour. What I mean by the word 'spot' in this chapter is an area of an eighth of an inch in breadth, or less in small works, and four or five times as much in large ones.

It can be hardly necessary to observe that drawing by spots is directly opposed to that tranquillity which has generally been sought for by the greatest artists. Serene great art avoids them as much as it can, and always prefers broad spaces varied internally by well-studied modelling.

Nevertheless, drawing by spots is certainly authorised by Nature in many of her aspects, so that artists who adopt th

method may fairly appeal to her and say that they have authority for what they do. They are, indeed, quite independent of any necessity for self-justification, as their work, when good of its kind, has a striking resemblance to some appearances in nature.

Spots of the most various shapes and colours are produced in the natural world by different causes. They may be actual *things*, such as the pebbles by a brook, the daisies in a pasture, the stars in the sky. They may be small reflections of light on polished surfaces, such as the glitter on armour, or small spaces of darkness, such as the little hollows in rocks under sunshine. They may be mere changes of colour, like the spots on the hides of animals or the feathers of birds.

Spots of all kinds are much more numerous in full sunshine than in quiet light, and this is a reason why full sunshine was carefully avoided by great old artists, and why it is often sought by clever modern ones. In sunshine there are innumerable small cast shadows, innumerable high lights. On dull days, or in twilight, all these disappear and give place to quiet breadth.

Artists who like spots are often exceedingly ingenious in the choice of subjects which admit that kind of interpretation. In figure-painting they avoid those broad and simple draperies which the classic artists preferred, and give their attention to eighteenth-century costumes, which are cut up into little details by complex tailoring and embroidery. When they choose amongst the dresses of the present day it is always with the same purposes, and the still-life represented in their pictures is full of flicker and glitter. In landscape they like small-leaved trees with delicate stems and branches, and generally small things that will catch the light and make spots and specks as little flowers do in a field.

Whilst thinking about the subject of this chapter I happened to look out of a window which commands the edge of a wood. It was early in the morning, an April morning, and

the wood was already covered with small green leaves, principally belonging to the birches. Bright early sunshine darted through everywhere, with level beams, and after getting through the entanglements of the trees, many of these beams hit some rising land opposite. The whole scene was nothing but specks and spots. All the leaves were dark or bright green spots, as they happened to be in shade or light. The stems of the birches were revealed by silvery spots, and even the branches of other trees were traceable only by a confused glitter in cool or warm grey. The field itself was pied with buttercups and daisies, and where the soil was not covered with vegetation, the bare earth showed itself in spots, and so did the small stones. In this instance Nature seemed fully to authorise the spot system, except in her sky, which was one vast space of serene pale azure.

Some of the most important points in the human face, the pupils of the eyes, the orifices of the nostrils, and the corners of the mouth, may be represented by spots, and that so effectively, that a few dots on paper convey a likeness, as we often see in the slight sketches of caricaturists.

The correct placing of spots requires a power of measurement by the eye, and consequently a power of drawing, not inferior to that required for accurate work in line. To draw a space of starlight sky with any near approximation to fidelity, by the eye only, would require the same powers, and the same training, as linear work, so far as simple accuracy is concerned.

The inferiority of the spot to the line is that it does not cultivate the sense of beauty to anything like the same degree, and consequently we find the spot resorted to rather by clever men than by great men. Skilful painters of costume and expression, including the whole school of Fortuny, use it extensively, but it is avoided by severe and serious student of form.

In landscape it has been sometimes used by great artists

Many fine woodland pictures by the elder Linnell are founded more upon the spot than upon the line or the area. Constable's love of glitter on foliage led him to study the effect of spots more than it had ever been studied before his time, and the results he attained were nearer to those aspects of nature which he loved than more tranquil and sober painting ever could have been.

Some artists who have not covered their pictures with spots have, nevertheless, made great use of them to give liveliness and sparkle to their work. The best known example of this is Landseer. He was excessively fond of sparkle, and loved above all things at the finish of a picture to put light dots on polished bits, stirrups, or armour, and especially on the bright eyes of his dogs and horses. An inferior draughtsman could not have put the dots as Landseer did, just in the right places for effect, and with the most unhesitating decision of touch.

It should be observed, in conclusion, that drawing by spots has nothing to do with stipple, which is founded on principles of its own, to be explained later.

CHAPTER X.

PEN AND INK.

DRAWING in ink, either with the common pen that we write with, or with some other kind of pen used more particularly for artistic purposes, has sometimes been hastily classed amongst the 'imperfect arts.'

What is meant by an 'imperfect art?' The expression is used to designate an art which does not render with equal facility all the aspects of nature. It is an expression which I have always strongly disliked, both for its want of precision, as it does not state in what the imperfection lies, and for its implication that there exists some other art which may deserve to be called 'perfect.' The expression is objectionable, also, because it refers only to the imitation of nature, and takes no account of the human mind, which, nevertheless, is too important a factor in the fine arts to be entirely left out of consideration.

Every art described in this volume is perfect within its own limits. When this is not understood there must be a fundamental misconception of the uses and possibilities of the fine arts. No one who understands them ever expects from them the complete representation of nature; that is not their purpose, they are simply means of human expression — means by which men convey to others their delight in what they see, and in the exercise of their own inventive power. Consider for a moment, how fundamentally imperfect, as imitations of nature, are the two arts which reign supreme in all the galleries of Europe, the arts of carving in marble and of paint-

ing in oil. Sculpture can only imitate *massive* form, painting can only imitate moderate light ; yet in spite of such imperfections, and many others, these arts are precious to us for their clear expression of the human spirit. If, then, it is said of pen-drawing that it is ‘imperfect,’ the answer is that pen-drawing is perfect within its own limits, and this is enough — enough for the long line of illustrious artists who have used the pen nobly, both in studies from nature and in sketching from imagination.

Every one of the graphic arts has its limits in the imitation of nature. Those of pen-drawing lie chiefly in tone and gradation ; but here it is necessary to establish a distinction between what is difficult and what is, in the absolute sense, impossible. The great artists who have drawn with the pen have always used it very much within its limits, they have not required from it as much tone and gradation as it can give ; and their reason for this reticence was because whenever tone and gradation happened to be their objects they had other and more rapid means at command. There is a wide distinction, in every art, between possibility and prudence. A delicate line-engraving *may* be so closely imitated with a fine pen that few people, at a little distance, would at the first glance detect the difference ; but no artist who knew the value of his time would waste it in such foolish toil. If he wanted delicate tones he would take sepia or bistre and a brush. Hence the pen-drawings of great artists, though really full of refinement, have often what to the uneducated seems a coarse appearance. This apparent coarseness is always due to the omission of delicate tones ; yet the omission is wise and right, not because pen-drawing cannot render such tones, but because it would be a misemployment of time and care to get them by its means. An author could, if he gave the necessary labour, learn to make his manuscript like print ; but no author who had anything to say would accept such a hindrance to mental expression.

The (apparently) coarsest pen-drawings are usually the work of great artists ; the delicate and highly-finished pen-drawings are usually the work of amateurs, or else of workmen who are paid to imitate engravings for the purposes of photographic reproduction.

Our first lesson in the criticism of pen-drawing must be on the distinction between real and apparent coarseness. Real coarseness is deadness of perception, answering to vulgarity in manners ; but that which looks like coarseness to the un-educated is only directness and simplicity of expression, in which the artist purposely simplifies his statement of what he knows. Great artists, when they take up the pen, simplify by the omission of tones ; and the more they know of tone the more they simplify. Again, they very seldom appear to care about tenuity of line for its own sake ; a blunt pen which makes thick lines suits them, except in very small drawings, quite as well as a pen with a fine point. Neither do they care about making shade imitative of the delicate quality which it has in nature. In nature it is simply a degree of darkness without any texture whatever of its own, a veil beneath which all the qualities of objects — their roughness or smoothness, their chromatic brightness or intensity — are subdued in proportion to its thickness ; in pen-drawing the presence of shade is indicated by lines which, in the best work, have the least of its natural softness.

The best pen-drawing — that which has been practised by the greatest masters — is rightly, and wisely, and resolutely conventional. It is only a partial expression of natural truth ; and it willingly accepts the falsity of linear shading without attempting to dissimulate it by making the lines so delicate that they may be unobtrusive. It expresses form by a decided line and a certain limited amount of modelling. It loses all delicate light shades in white paper, and it often represents all intense darks by black blots, without attempting minute distinctions between the degrees of their intensity.

In many of the finest pen-drawings the extreme darks are omitted altogether, and the forms of nature are sufficiently suggested without them.

A good example of the sort of work which looks very coarse, but is not, is a drawing by Donatello in the collection of the Duc d'Aumale, a pen-sketch for some project of an Entombment.* All the lines are so thick and rude that if a poster were drawn on such principles the lines in it would be strong enough, but what does this rudeness matter? Donatello was not seeking for delicacy of shade; he wanted to get the attitudes and expressions of three or four important figures with the leading folds of their drapery, and here they are — one figure especially — clearly conceived and firmly set down whilst the idea was there in all its freshness. Modelling is rudely indicated with thick lines for shade and some cross-hatching running, in the darkest places, into black blots; so that a Philistine, who knew nothing about summary expression in the fine arts and nothing about Donatello, might conclude that his notions of modelling were very elementary. Such conclusions are perilous. Great artists do not always exhibit the whole of their knowledge; they give what is sufficient for the occasion.

Michael Angelo was another illustrious artist who used the pen with a great deal of rough vigour, and in his case there was sometimes a peculiarity which it is not desirable that anybody should imitate. So long as he kept within the limits of real drawing his work was full of grandeur; but he sometimes, in the exuberance of an overheated imagination, passed beyond drawing altogether and exercised himself in the flourishes of calligraphy. A bold and rapid pen-sketch of his, † representing three reclining figures, is distinctly executed with dashing curves and flourishes of the calligraphist. It is as if it had been done by some clever writing-master,

* Reproduced in *L'Art*, vol. xviii.

† *L'Art*, vol. iii. p. 117.

as a flourishing translation of a study by a learned artist. Michael Angelo, in this design, appears to have been intoxicated with his own facility and to have lost the self-control without which there can be no truthful modulation of line. The lines here are not studied, any of them, but dashed in like the curves of capital letters. A much finer and better example of Michael Angelo's work with the pen is the page of studies of hands, three of them, larger than life, with a man's back in the upper left-hand corner. The original is at Oxford ; but it has been autotyped by Braun, and is quite a first-rate example of bold but sober work. The hands are modelled with great power, showing both the bony and muscular structure and the tension of skin between the fingers which are separated as they grasp some object, the wrist being high and bent. The well-known 'Satyr's Head,' in profile, in the Louvre, which was drawn by Michael Angelo in ink, upon a drawing of a female head in sanguine, and which is supposed to have been done when Michael Angelo was a young man, is a strong and careful piece of modelling in hatched pen-work after the manner of some powerful piece of engraving, plainly showing that the artist could do sober work when in the humour, and that the calligraphic flourishes in some of his rapid sketches were the result of a temporary excitement which carried him outside of, and beyond, the proper sphere of drawing. One of the finest of the very slight ink sketches is that of the reclining figure of Day, but it was done in such a hurry that the face is obliterated in scribble, and one foot is half as long again as the other.*

The pen-drawings of Raphael are delightful for their easy grace, and for the sure judgment with which the artist stopped short at those limits that a wise painter seldom transgresses: when he draws with pen and ink. He left many drawings with the pen, chiefly sketches of projects and intentions, so that the subjects are often fully composed and we get those

* A reproduction appeared in *L'Art*, vol. iii. p. 83.

improvements upon the natural lines which Raphael's exquisite taste suggested. Other drawings are more matter-of-fact studies in which, of course, there is much less grace of line than there is in his ideas for pictures. To my taste, the best of Raphael's pen-drawings are the most entirely satisfactory expressions of his genius. I like them better than his paintings, for reasons which shall be given when we come to the greater art, and they have a charm of freshness, of genius actually at work before us, thinking and realising its thoughts at the same time, which is not to be found in any of the elaborate engravings from his finished designs. Popular admiration often confounds one quality with another, and so because Raphael had such a gift of graceful drawing as had never been seen before in Europe, he has been called the Prince of Painters ; which is a great mistake — as great a mistake as if you were to credit a man with eminent Greek scholarship on the strength of his elegant Latin.

Raphael, as a draughtsman with the pen, avoided (probably without ever thinking about it) the defects of Michael Angelo. There is great freedom in many of his designs, but you will never find in them a single instance of wild flourishes due to over-excitement. Always master of himself, he lived with his own ideas of grace and beauty, which may often have pressed upon him somewhat urgently for at least a partial realisation, but which never made him forget that he was drawing. No man ever sketched more slightly when in a hurry, but the haste is indicated by extreme economy of labour, and not by lines run wild. There is the lovely sketch for the Virgin with the bullfinch, at Oxford,* so rapid that there is no outline for the forehead of the infant Jesus, and we see the Virgin's right hand through the other child's head, as if it were glass ; yet the lines of the two principal figures are drawn with moderation, and although the shading is very summary, consisting of strong

* Reproduced as an illustration in the *Life of Raphael*, by Eugène Müntz.

diagonal strokes with wide spaces between them, it is carefully placed, so as to give the infant Jesus the calculated degree of relief, and the effect of it, taken together, is moderate. This moderation in shading is characteristic of Raphael. In certain places he would put a thick line, or a blot, to give strong accent or relief, but his shading is usually a middle-tint got with diagonal lines. All the elements of Raphael's pen-drawing will be found, on analysis, to reduce themselves to these four.

1. Pure line, indicating forms of persons, folds of drapery, &c. This line is not hard outline, but is often broken and picturesque, and deals with material within the outline; it is often multiple, so that the eye has three or four lines to choose from, in consequence of experiments and alterations. It is not generally thick, though it seems so when near lines run into each other.

2. Shading over the line, mostly diagonal, but not invariably. This shading is generally open, the lines being sometimes an eighth of an inch apart, but it is used only as a middle tint, all lighter tints being left white.

3. Cross-hatching, seldom resorted to, and used only accidentally, as it were, in parts, never laboriously, as if to imitate an engraving.

4. Thickened lines in places. The use of these is to give vigorous accents of relief. They have nothing to do with chiaroscuro, and are only used to detach features, members, or other objects. A nose, for instance, will sometimes be outlined with a very thick line, to make it very clearly visible, in which case the thick line becomes a dark background on which the nose relieves itself as a white object. In a study for the 'Entombment,' in M. Gay's collection, the shoulders of the kneeling female figure are outlined with strokes as thick as large capital letter of this type. This has nothing to do with nature, it is simply a device for detaching objects without full light-and-shade. It is extensively resorted to at the present day in wood-engraving.

The greatest of the Venetian pen-draughtsmen was Titian, whose remarkable power with this instrument will be better appreciated if the reader will take the trouble to look at earlier work of the same school, such as that of Gentile Bellini, of which there are some examples in the British Museum. The advance from G. Bellini to Titian is even greater than that from Mantegna to Raphael, for Mantegna had great breadth and decision in a simple style, though his work was primitive in comparison with the mature work of Raphaël, whereas G. Bellini was delicate and even timid in manner, working out his drawing in minute pen-touches, and giving details with extreme care.* The advance from work of that class to the masculine line of Titian is like the progress from hesitating infancy to the most robust maturity.

The general characteristics of Titian's pen-drawing are these :— He seems to have considered the pen simply as an instrument for explaining the nature of tangible things, such as figures, trees, stones, ships, &c., and he did not use it even for the suggestion of colour, mystery, and effect. There is no local colour in his pen-drawings : an object dark in itself is of the same colour as a light object. I need hardly observe that this is not due either to ignorance or forgetfulness ; certainly it cannot have been due to ignorance, for hundreds of pictures give their testimony that Titian was even more alive than most artists are to the value of local colour in the lights and darks of a picture. Other artists very frequently seek for variety of light and dark in sunshine and shadow, but Titian contented himself with diffuse light from the sky, and got the necessary variety in depth almost exclusively by means of the weights or values of local colour. As to possible forgetfulness this might have occurred in a single drawing, but the pen-drawings

* As, for example, in the drawing in the British Museum of a warrior in a high cap, seated, with a quiver on one side and a bow and sword on the other. Above him, in the same mount, is a study of a woman, executed on the same principles.

of Titian are very numerous, and I believe they all ignore local colour equally, which proves a settled determination to avoid it in this kind of art. Again, his pen-drawings do not attempt to give either the mystery or the texture of natural things, nor do they represent the contrasts of light and shade which come from illumination, consequently they miss several very valuable elements of what may be called the poetical impressions that we receive from the external world. What they really do give, and that with extraordinary force and clearness, is the artist's knowledge of things in themselves, and his sense of their mutual relations as elements in composition. They are not so elegant and charming as the pen-drawings of Raphael; but taking the whole of the material that Titian dealt with together, his drawings show by far the more comprehensive understanding of the visible world. Many readers will remember the noble pen-drawing of Peter Martyr, which has been autotyped,* and in which we see, at its best, the painter's firm and simple treatment both of figures and trees, but the drawings in the Uffizj at Florence are less known, though some of them have been autotyped by Braun. Three landscapes, with mountainous distances and fine trees in the fore-grounds, are especially grand examples of the bold and learned manner in which Titian dealt with natural material of a very high order. In one of these landscapes there is a crowded group of trees to the left on rocky ground, occupying half the picture, and the eye looks down from an eminence into a valley, out of which it ascends again over land diversified by minor hills and clumps of noble trees, until it comes to a distance of lofty crests, peak behind peak, 'far, far away.' This drawing is quite enough to prove that although Titian's system of pen-work did not admit delicate tones, which are very valuable and useful in landscape, he could give a great deal of

* It is included in a volume of autotypes from drawings in the British Museum, published by Messrs. Chatto and Windus, with text by Mr. Comyns Carr.

landscape character without them. Properly speaking, there is no chiaroscuro in this drawing. There is some shading, but it is simply explanatory of form, of the roundness of tree-trunks, or the ruggedness of the mountain ground. Nothing can exceed the simplicity of the means used — a plain pen-line everywhere, never very delicate, even in the outlines of the distant mountains, and never thick or blotted as in Raphael and Michael Angelo, or in the modern work of which we shall have to speak presently. If you do not enjoy the *drawing*, if you do not take delight in Titian's understanding of earth, and stones, and trees, the work will seem grey and dull to you, for it has no glamour of sparkle and gloom ; but it is the kind of work in which landscape-painting of the most brilliant description may lay its firmest and most secure foundation. Here we have not the glory of landscape, not its splendours nor its mysteries, not its soft seductive beauty that fills the heart of man with a sweet sadness and inspires his imagination with dreams of a lost Paradise, but the positive tangible landscape of earth, and stone, and wood, drawn with the same grasp of matter that enables a figure-painter to deal with the bones and muscles of which our limbs are built. This realism, or, to use a still more accurate word, this materialism, of Titian's mind, made the pen an acceptable instrument for him. It is an excellent instrument for plain statements of material facts, the hard and clear ink line records them rigorously and preserves them permanently, but it is not the instrument wherewith to express the tender reveries of a weary heart or the vague longings of a wandering imagination.

All hard and definite things, such as buildings and the trunks of trees, may be very well rendered with pen-lines.

titian often put buildings in the middle distances of his pen-drawings, and he had, notwithstanding the general largeness of his conceptions, rather a lively sense of the picturesque. His little mountain towns, with their variety of roofs and towers, and his villages with their homesteads, are delightful

for the loving care with which he attended to interesting details of construction, such as the placing of windows and arches, but, unluckily, in consequence of some obliquity of vision, he never could draw vertical lines, always making them lean far to the right, sometimes even with a radiating sort of arrangement like the pieces on the right-hand side of a fan. In the Dresden Museum there is a noble drawing of a seaport on an island with rugged mountains beyond a strait, and a cliff crowned with a tower to the spectator's right, but, of course, all the walls are leaning in a way that threatens ruin. This drawing is specially interesting for its simple treatment of clouds and water, the movement of both being indicated with a few well-chosen lines, drawn just as firmly as those of the land or buildings. It not unfrequently happens that in the foregrounds of Titian's pen-drawings there is a good deal of what may be called unmeaning shading in long bold lines which efface the delicate beauty of natural vegetation, and are of use only as very broad indications of the modelling of the earth-masses ; but whatever faults may be pointed out in these works they are always noble in style and most happily combine great breadth and energy of treatment with a vigilant attention to characteristic facts of form.*

Giorgione employed the pen in a manner which reminds us of Titian, but he used blacks more boldly, and he admitted a system of broken dotted lines as a suggestion of the texture of rocks which we do not find in Titian. His drawings of the figure are simple and lively, with light, easy shading, not too much insisted upon, and points of deep black which give accent and vivacity.

Claude left many pen-drawings, of which by far the greater number are more or less sustained by washes of bistre, o

* If the reader is seriously interested in studies of this kind he would do well to procure for himself Braun's Autotypes from the Uffizj, marked 813, 814, 815, and 816, in Braun's general catalogue, and also the drawing from the Dresden Museum marked 63.

some other water-colour monochrome. Some, however, are in pure pen-work, and these may be taken as the beginning of modern landscape sketching with the pen, which differs from the massive draughtsmanship of Titian in a greater lightness of style with less insistence upon facts of substance. Claude's drawing of material things was always comparatively slight, even when he was most energetic; but this slightness was amply compensated for by a new and exquisite sense of landscape effect and composition. We are not to look to his pure pen-drawings for effect, they are merely rough sketches of possible subjects, yet they show the landscape-painter in the choice and arrangement of material. Some of them are apparently coarse in manner to a degree which may at first surprise students who are familiar with Claude's delicate skies and distances in oil-painting, but it very frequently happens that the most refined painters used the pen with the least seeking after delicacy of line. I do not, however, think that Claude generally drew powerfully enough to make his pen-drawings very valuable in themselves; they require to be sustained by washes, when the chiaroscuro so added makes them more interesting.

The northern schools used the pen quite as vigorously as the Italian. Albert Dürer's wonderful manual skill with the burin, a much more difficult instrument than the pen, made him quite at ease in his drawings, and there is a sense of freedom in them showing itself in a facility of manner which, though not comparable to the light grace of Raphael, is still an evidence that the artist felt himself at play. Dürer's pen-drawings show the artist's mind in its hours, not of idleness, but of artistic relaxation, when he felt himself relieved for a while from the stress and strain of the mechanical perfection at engraving demanded, and could realise his ideas, to a certain extent at least, without any pain or effort. His system of shading was simple, and divided the subject into light and darker masses without reference to local colour, and with

no intentional display of craft in cross-hatching or in varied thickness of line.*

The pen is too valuable an instrument ever to have been completely abandoned by artists, but it has been employed by them more or less according to those delicate elective affinities which exist between tools and workmen. Any one who knows Rembrandt's etchings would be aware beforehand that pen-drawing must have suited him. He left many sketches with the pen, remarkably free in manner, and answering rather to the *croquis* amongst his etchings than to his more elaborate performances on copper. There is an essential difference between the massive drawing of Titian and Rembrandt's summary sketching. Rembrandt did not use the pen for the elaboration of forms, but simply to indicate them, just as in the most rapid writing it is enough if the words are recognisable provided they are in their right places. The omissions in such hasty sketching are often rather surprising. Rembrandt would omit important features when in a hurry. In a sketch for the 'Anatomical Lesson,' a student is seen full-face, but though the artist has provided him with a sort of nose and eyebrows, he has not thought it necessary to give him any mouth—an omission of no consequence in a sketch for composition. The real interest of these sketches is the artist's amazing strength of expression with the slightest means. In a sketch of the 'Entombment,' which belonged to the painter Diaz, the dead body looks more truly like death than it does in many an elaborate picture; there is death in the open mouth, in the falling back of the head, in the unrestrained rising of the shoulder from the way the bearer carries it, and even in the very contraction of the toes. There is a sorrowful expression in the faces and attitudes of the living, though the whole composition does not contain ten minutes' work. Here is the virtue and excel-

* See the drawing of 'A Holy Family,' by Albert Dürer, in the collection of the Duc d'Aumale, reproduced in *L'Art*, vol. xix. p. 99.

lence of such rapid sketching as this — of the true *croquis* — to give composition and expression. As to form, all that can be done in the time is to keep good proportions in length and thickness of limb and size of head, minute truth of form cannot be given, and is not to be expected. In the sketch just mentioned the back of the nearest figure is barred with thick diagonal lines, wide apart; these are Rembrandt's rough note of an intended weight or value of shade. 'I mean this fellow to have a dark garment reaching below the knee.' It is an intention and not a representation.

Only to mention the names of all the artists who have sketched or drawn with the pen would be to write a catalogue instead of a chapter, so we must restrict ourselves to a few characteristic examples of different varieties in method.

A very systematic kind of pen-drawing was applied to landscape in the earlier part of the nineteenth century by two Frenchmen — Aligny and Edouard Bertin. Their drawings, especially those of Aligny, are still valued, and may be found occasionally in French collections. I mention them here because, although Aligny was not a great master, it is evident that he had thought much about the proper way of interpreting nature with the pen, and that his reflections led him to a set method which combined a good deal of natural truth with tasteful choice and arrangement. He travelled much, and made pen-drawings of scenery and buildings full of very clear statements of fact, and often conveying very effectively the idea of sunlight, but prudently avoiding local colour and anything like full chiaroscuro. His drawings were hard and dry, yet they express a clear-cut artificial world, which bears a definite artistic relation to the half-seen, mysterious natural world, just as the sharp and brilliant writing of a clever French *prosateur* has some sort of relation to the unfathomable sea of universal truth.* So it is with the pen-drawings

* There are some good examples of Aligny's work in the Museum at Utun; and one in the Luxembourg, 'A View of Corinth, with Ruins and Mountains,' was published in *L'Art*, vol. xii. p. 267.

of Edouard Bertin. They are nature simplified and made clear. Mountains are cut into simple masses, and the branches of trees are laden with masses of a different character, sometimes light and sometimes dark, which have some of the qualities of foliage. The scheme of interpretation was successful as far as it went, but it had the defect of suggesting nothing that it could not positively explain. The pen-sketching of Rembrandt, on the other hand, is not very explanatory, but every scratch in it is interesting because it suggests far more than it communicates.

There are, in fact, two distinct and opposite ways in which the draughtsman with the pen may deal with the truths that he cannot closely imitate, either from want of time, or from the narrow limits of his art. He may wholly and absolutely *omit* them, doing clearly without them as the writer of a book omits and does without a quotation which he can neither copy nor remember. This was Aligny's method — the method of abstraction ; but there is also another method, that of Rembrandt, which gives hints and suggestions far beyond its power of realisation. There cannot be a doubt that the suggestive kinds of pen-drawing are by far the more valuable of the two ; for however careful and elaborate the clear kind of work may be, it is soon exhausted, and its very clearness is in itself a falsity, whereas suggestive work is always rewarding us by discoveries of partly expressed intentions, and the mystery of it, whether strictly true or not, is at least some sort of an equivalent for the endless mystery of nature.

It is time now, as we approach the modern schools, that we should examine one of the most important elements in modern pen-drawing, the black blot.

Every reader who is at all familiar with the analysis of works of art must be aware already that in most drawings a great number of light shades are lost in pure white paper. I may call his attention to the fact, which he knows quite well already, that pure white paper is absolutely *flat*, that there is no

gradation in it whatever. We see, then, that in tolerating flat white in a drawing, we tolerate the merging of many shades in one, which stands for them generally, as the word 'aristocracy' stands for all the higher classes, and besides this we tolerate an untruth, the absence of gradation, which is contrary to the habit of nature. There can be no valid reason why exactly the same thing should not be done at the other end of the scale. We have flat whites in abundance; why not admit flat blacks?

The artistic effect of flat blacks may be seen in many of the best wood-engravings, and also in immense numbers of Oriental drawings; but the Chinese and Japanese draughtsmen, who use flat blacks in any large spaces, fill them up with the brush charged with Indian ink, and we are at present considering pure pen-work only. Now, as a matter of harmony in style, I think that all blacks introduced in a pen-drawing ought to have clearly the appearance of having been done easily with the pen itself, and that only. With this restriction, there can be no reasonable objection to their use. All that the artist means by them is that at those places the darks of nature went down below a certain level. The holes and corners of picturesque buildings are darker than Indian ink with the light upon it, and so are the shady sides of all dark draperies; other darks come nearly up to Indian ink, others (greys and browns in nature) are just equivalent to it. The flat black represents all these together quite as fairly and legitimately as the flat white represents luminous greys and greens.

There may, however, be a vicious excess in the use of the black blot, and this is always reached when, for the mere sake of making the drawing look brilliant, the artist represents ones in absolute black which in nature are positively lighter. Daumier, the famous French caricaturist, was so fond of black that he freely used it to represent shadows which ought to have been translated by grey; and although nobody expects a caricaturist to be very delicate in the choice of technical

means, the manifest technical inferiority of Daumier to George Du Maurier is due in great measure to the fact that Daumier used flat blacks immoderately and out of their right places, whilst Du Maurier puts them just where they ought to be with reference to local colour and light and shade. Charlet, a French draughtsman of military subjects, who won a great reputation between 1820 and 1845, and who used the pen with a full knowledge of its value as an artistic instrument, employed the black blot very frequently indeed ; I mean that you might count thirty or forty such blots in the same drawing, but none of them were very broad, and to prevent them from being too heavy, he would run a bit of pure white into them, such as a blade or two of grass, a few sprays and leaves in landscape, or in military accoutrements such little things as a button, a piece of braid, or the trigger-guard of a musket.

Fortuny, the Spanish painter, introduced a new kind of pen-drawing, which has been followed by Casanova and others of the same school, and which has had some influence outside of it as well as upon the practice of etching. The line, in the pen-work of the old masters, had generally been rather long, and in some instances both long and strong at the same time. Fortuny tried the effect of short broken lines probably because he perceived that he seldom saw in nature anything that could be fairly interpreted by a long line. It is certain that the long, clear, sharp lines of Aligny are always false, from over-definition, along a great part of their course. In nature we see a contour clearly for a little way, then it becomes obscure or difficult to follow, and then we recover it again, changes in the degree of visibility which are better represented by a broken line than by one that is equally continuous. But, besides this, there is another element of falsity in what are considered pure and classic lines. They may be beautiful in themselves, but to make them what is called 'pure,' they have to be simplified, that is to say, the small irregularities have to be cut away, and this is a sacrifice of many minute truths, an

of the great truth that there are such irregularities. A reference to geography may illustrate my meaning clearly. A map of England with a purified and simplified outline might be beautiful, but it would be so at the cost of a multitude of omissions, since every league of coast has its own variety of projection and indentation. A map of England made by a carefully observant surveyor could never have a bold and simple outline. So it is with the drawings of artists ; what is called chaste and classic simplicity, is an abstraction obtained at a great sacrifice. Fortuny sought the opposite quality of variety. Again, it was a result of this taste that he used thin lines. His lines were black, but they were thin, because the pen that made a thick line could never have been nimble enough to follow the ins and outs of a varied natural outline. He could bring his thin lines near together and get a dark shade, or he could bring them quite close and make an intentional blot, which he often did with very great judgment ; but as he found that, with his system of execution, the thin line could be made to express every degree of dark, he did not feel obliged to abandon it. Michael Angelo and Rembrandt both worked on a different system — with them the thick line was an important means of expression, whilst in Raphael it is an artifice for definition.*

Pen-drawing of various kinds has been followed vigorously in France even in the past generation. Painters like Eugène Delacroix, Géricault, Théodore Rousseau, and Paul Huet, drew very effectively with the pen. Huet was as systematic as Aligny, but not so formal ; he used a strong picturesque line and a large black blot. Rousseau drew with an almost child-like absence of pretension, in fragmentary touches,

* The reader may find some pen-sketches by Fortuny in the artistic periodicals. There are in *L'Art* — 1st, A sketch of a valet, seated on a stool, with a stick in his hand (vol. i. p. 372); 2nd, A portrait of José Ipiro (vol. ii. p. 66); 3rd, A sketch of a warrior with his shield (vol. ii. 58). The first is an engraving on wood, but it preserves most of the qualities of Fortuny's work.

which look very unlearned yet preserve the spirit of the scene. Géricault drew with the fire and energy of a man of genius ; he had, however, a mannerism sometimes found amongst the draughtsmen of his time, which consisted in putting a dot at the end of a stroke when nothing in nature called for it. This vice did not infect his boldest work, which is almost equal to Rembrandt in strength of conception and simplicity of purpose. The 'Lion holding a Serpent,' a rude sketch by Géricault in thick lines, bears a striking resemblance to Rembrandt's most energetic sketching, though, of course, Géricault thought only of his subject. Delacroix used the pen chiefly for experimental sketches, which are interesting and have a close affinity with his handwriting, in which he used large letters and thick strokes. Some pen-sketches by Delacroix remind one of Michael Angelo in their manner. Both artists employed the thickening line which begins with a point, like a blade of grass, and thickens towards the middle. It is one of the advantages of the pen over the etching-needle to be able to give lines of this description, which are a help at least so far as this, that they express elasticity and energy in the artist.*

I have not had space in this chapter to mention a tithe of the famous artists who have employed pen and ink in drawing, but I invite the reader's attention to one point which is likely to be forgotten as time goes on. He must remember that no master who worked before the second half of the nineteenth century had any reason for choosing the pen except that he liked it, that he valued its artistic capabilities. If an old master, such as Titian, loved the pen, it was not for any external reason ; but the invention of photography and of the various kinds of photographic printing and engraving has in this second half of the nineteenth centur

* A very good instance of this is the two arms sketched after the postscript in a letter from Delacroix to Alexander Dumas, given in the published correspondence of the painter.

given a very powerful external reason for studying pen-drawing, and enormously enhanced the commercial importance of the art. It so happens that nothing we can draw reproduces quite so perfectly as a clear black-ink line on perfectly smooth white paper, and in consequence of this the art of drawing with the pen has suddenly become the principal means of disseminating artistic ideas when economy is an object. Pen-sketches by artists from their own pictures are reproduced and printed with catalogues, or in the pages of art-magazines, which by this means are able to give autographs more expressive of the artist's mind, however roughly executed, than a formal engraving by another hand. One very great educational advantage of the photographic processes is that the public, which formerly looked upon real sketches with indifference or contempt, as ill-drawn or unfinished things, unworthy of its attention, is now much better able to understand the short-hand of drawing, and consequently is better prepared to set a just value on the pen-sketches of the great masters.

The immense quantities of pen-drawings which will be produced in the future with a view to some kind of photographic engraving (especially for printing with type) will form, as it were, an infinite ocean of production, in the midst of which the works of our contemporaries will be scarcely more distinguishable than the waves of the Atlantic. Their only chance of relative immortality is a reputation won in some other department of art. Sir John Gilbert will be remembered as a famous artist in many ways; so, perhaps, posterity will not forget that his pen-work was strong and original. Such sketching as the lively *croquis* done by him in 1875, from his own picture of 'Don Quixote and Sancho before the Duchess,' is as perfect as anything can be in that manner. The elements of it are the thin line, the thick line, and the lack blot, all used with the utmost lightness of hand and freedom, and conveying not only movement and expression,

but something of local colour, in hair and dress, at the same time. White, black, and two greys, are the simple elements with which the local colour of the painting is suggested. Mr. Marks draws with intentional simplicity of line, and grey straight shading in the style of an old engraving. There is no play of hand in his manner, as in that of Sir John Gilbert, he draws soberly like the old draughtsmen on wood, with hardly any blotting, and as little cross-hatching as possible — a perfectly sound style, but not a very lively one. One of the best styles in pen-drawing practised by contemporary painters is that of Mr. G. H. Boughton. It is not hard, nor minute, and it does not appear laborious, and yet it takes account of lights and darks, and, to a sufficient degree, of the nature of materials. It entirely avoids the too great clearness and precision which we noticed in the systematic work of Aligny and Bertin. Mr. Boughton suggests much more than he fully expresses, and varies his means of interpretation as occasion requires, employing thin lines or thick ones, broken lines or continuous ones, dashes, dots, blots, just as it suits him. Such drawings as those from his pictures of 'The Rivals,' and 'A Ruffling Breeze,' show quite a strong and decided natural gift for pen-drawing in the modern spirit. Mr. Cecil Lawson's pen-drawings err in the opposite direction to those of Aligny. The French artist had no mystery, the Englishman has too much, so that his drawing passes into confusion. The French artist substituted for the infinite tones of nature a few distinct tones of his own, four or five of them, that you can count ; the English landscape-painter attempts the whole scale of natural tone with the pen, and the method betrays him. Aligny stuck to the line as a man overboard clings to a thrown rope ; in Mr. Lawson's work the line is so completely abolished that it seems as if the artist had never discovered anything like linear beauty in nature. In short, Mr. Lawson pens landscape as if he were painting, and the slightest deterioration in the reproduction

of his drawings is fatal to them. They ought to be reproduced by the most perfect photographic intaglio engraving, and not by the typographic processes.

Whenever there is strong individuality in a style, it is sure to deserve attention in spite of serious defects; for individuality cannot exist without power, and there cannot be power without a combination of knowledge and passion. Ribot, the French painter, draws with the pen in a manner of his own, making great use of dots and spots wherever he can find a pretext for them, and broadly separating light spaces from dark spaces. He avoids straight parallel lines, in which his manner is directly opposed to early wood-engraving; his lines are generally short, more or less curved, and very much varied in direction. The number of dots makes a pen-drawing by him look like a pitted etching, overbitten, except that all the dots help the drawing and expression of the figures. De Neuville, the famous military painter, is one of the most perfectly accomplished pen-draughtsmen who have ever practised the art. In his work 'A Coups de Fusil,' a set of sketches of war subjects in 1870, he shows the qualities of the best and most natural modern manner, which looks as easy as handwriting, seems to go by no methodical rule of any kind, and yet cautiously avoids all the pitfalls which lie in wait for the unwary, whilst it is intensely observant in reality, though without any strain of attention. For example, in one of the sketches an old lady is burying her silver-plate on the approach of the enemy. It looks very slight, and the detail is quite unobtrusive, but when you come to look into it, you can quite easily make out the design of the coffee-pot and soup-tureen and cruet-stand down to the exact shape of the oppers, with the lights and reflections on the silver and ass. So we know all about the poor old lady's dress, her ack silk gown, and her white cap with the dark ribbons in t of place, yet none of them are drawn more than they

should be, and they never obtrude themselves on our notice. They are like words used correctly in easy speech, where there is not a trace of pedantry. The same knowledge, without insistence, may be observed in M. de Neuville's management of lights and darks. He recognises light and shade, and he recognises local colour also, but he never over-labours his work for the sake of either. You can see at once that the village mayor wears a dark coat and light trousers, that one side of a house is in light and the other in shadow, yet the drawing seems as little encumbered by pen-shading, as if there were none of it. It would be hard to find a set of drawings which conveyed so much truth and made so little fuss about it.

It sometimes happens that there are great virtues in the work of amateurs which are prevented from receiving due recognition because the amateur is not a master of form. The pen-sketches of Hood, the poet and humourist, were admirably sound in manner, far sounder and better than many laboured attempts by accomplished painters ; and yet, as it was evident that Hood's knowledge of form was quite unscientific, it was thought that his sketches had no higher quality than that of making people laugh. Not only was his line very expressive, but his management of the means at his command in lights and darks was always exceedingly judicious. For example, in the scene where four expectant negroes are roasting a white man, he uses positive black on the negroes with the most artistic reserve, it is kept for the two nearest, and only used, even on them, for the deepest shades ; the receding distances of the others are expressed by three shades of grey ; finally, the white man, who is suspended over the fire, is drawn in very thin outline without any shading whatever, that we may clearly perceive his whiteness. Rembrandt himself could not have arranged the subject better. Another amateur, much more accomplished than Hood, M. Jules Buisson, who was a deputy at the National Asser-

bly at Versailles, conceived the idea of making an historical portrait gallery of his colleagues under the happy title, 'Le Musée des Souverains.' It was a collection of pen-sketches, which are sure of immortality for their great political interest, and which richly deserve it for their artistic qualities quite independently of politics. M. Buisson's principle of caricature is the same as that of Leonardo da Vinci, the exaggeration of ugly or ridiculous features, but he is more moderate than Leonardo was, and therefore more to be dreaded by his victims, for he is crafty enough to leave us frequently in doubt as to the possible degree of natural ugliness in the living legislators. Had they really such features — those fathers of the constitution of 1875? We hardly know; we think they may possibly have been like that. The caricatures are not obviously very wide deviations from nature, and the lolling, ungraceful attitudes seem to be truth itself. These are the notables of Philistia, in whom there is no sweetness, and for whom, if any light shineth, it is feeble and remote like the sunshine on Uranus.

M. Buisson's collection of portraits exhibits pen-drawing in its most distinct varieties. We have the dashing sketch in few and strong lines, the quiet sketch in sober thin lines with just a suggestion of light and shade, and the carefully modelled drawing in innumerable lines. The more dreadful the caricature the more elaborate the artistic performance. Every abormal bump on a cranium, every protuberant padding of fat on cheek or neck, is modelled as if it had been a beauty. It is easy to see that the artist had a grim enjoyment of his own skill, for in his finished drawings he carefully gives them the local colour of hair and complexion, of coat and velvet collar, or black neck-tie. Such work has technical as well as uman interest, for it shows how much plain truth the pen nay be made to tell.

Before concluding this chapter I must clear away a possible use of confusion. When people see the woodcuts in *Punch*,

by such artists as Leech and George Du Maurier, they are apt to think of their technical merits, if ever they happen to think of them at all, as belonging to the art of engraving on wood. Now wood-engraving has its own merits, to which full justice shall be rendered in the right place, but we must say plainly here, that in the cuts from Leech and Du Maurier, wood-engraving is entirely a subordinate art, and that the whole artistic merit of those cuts (which the engraver is fortunate if he does not diminish) is the merit of good, sound pen-drawing. Again, because the contributors to *Punch* are witty men who make us laugh, we are only too apt to overlook the artistic qualities of their drawings ; so that it would seem strange to many if I compared John Leech to the great serious masters of the pen such as Raphael and Titian. Well, we know, of course, the mental distinction between a gentle satirist of modern life and an inventor of immortal beauty, but in such matters as the judicious use of the ink-line in shading John Leech is comparable to Raphael, or to any artist who ever lived. If you study such admirable designs as the 'Hunting in the Holidays,' or the "Oh, my goodness ! It's beginning to rain !" a sketch on the Yorkshire coast,' with the attention which they deserve, you will find that the pen-line is made to convey a wonderful amount of truth, not only about the forms of organic and inorganic things, but about their local colour, texture, and substance. Leech's line was always wonderfully explanatory. Light and airy in one place, firm in another, sometimes clear and definite, sometimes intentionally confused, it described everything that came in his way more accurately than the paragraphs of our most laborious novelists, and with all his respect for various kinds of truth his drawings were never encumbered. It is an endless pleasure to follow the strokes of his pen, to see how they express everything he chooses, and with what modestly consummate science, the possession of a gentleman, not the display of a performer. His well-dressed ladies, h

fashionables, and middle-class people, his sleek horses, rough Shetland ponies, donkeys, and Skye-terriers — all have their precisely appropriate appearance, whilst even his landscape, subordinate though it be, is fully suggestive of English nature through all changes of season and weather.

With all its excellence, the pen-drawing of Leech had one peculiarity, which made it pictorially less effective than it might have been ; it was rather grey. Now we sometimes find it assumed by critics that to be grey is a fault in a pen-drawing or a woodcut, whilst a strong opposition of white and black is a virtue. Such an assumption is quite untenable, and is founded on simple ignorance of what has been done by the great men ; for they made grey drawings, or black and white drawings, just as the subject required or as their own feeling suggested.* It was not in the slightest degree a fault in Leech to draw in rather a grey manner ; but he might, if he had chosen, have made his drawings look more effective by insisting more on blacks when he had an opportunity for doing so, and by artfully bringing clear and brilliant whites into opposition with them. Mr. George Du Maurier has availed himself of these resources with a degree of tact and skill which, in pen-drawing, is unprecedented. For example, in his 'Winter Walk' a number of school-girls are passing in procession along a wooded lane. In the middle distance their dresses tell in dark grey against the dark grey trees, but in the foreground they tell in most vigorous blacks against a large space of pure white snow. Small details of dress, such as the white fur round a muff, are used to prevent the black from being too heavy. So in the admirable scene on a staircase, where a procession of ladies and gentlemen is ing down to dinner, the black costumes of the men are

* Amongst modern artists who make grey pen-drawings with intelligence and skill I may mention Harpignies, the French landscape-painter whose work with the pen is always elegant and perfectly harmonious, yet conceived and executed from first to last in quiet greys.

used as foils to the bright dresses of the ladies ; and in the ladies' dresses themselves, especially that in the most conspicuous position, white and black are opposed as vigorously as possible. Such a drawing is not in full tone, or anything like it ; there are many necessary and intentional omissions, very light tones are translated by white, very dark ones are merged in black ; but the artist has so contrived his arrangements as to get the effective oppositions which are an essential element of his art. Pray observe, too, that the effect of them is not merely technical ; they have an influence on our minds. The ideas of wealth, comfort, and civilisation, are certainly more fully expressed in this manner than they could be in the slighter manner of Doyle. A black coat or a velvet gown can never look warm in outline.

I have not space to follow out the uses of the pen in architectural drawing, but the main distinctions may be marked in a few words.

An architect may draw either to explain facts of construction, or to give truth of aspect. The two kinds of drawing are opposite and incompatible. Facts of construction are most clearly explained by a conventional system, well understood by the best architectural draughtsmen, which entirely eliminates mystery ; whilst truth of aspect includes mere suggestion and intentionally doubtful and imperfect degrees of definition. Viollet-le-Duc, the celebrated French architect, was probably the most industrious and the most able expositor of definite objects by explanatory pen-drawing who ever lived in Europe ; but he could not sketch the aspect of an old building with half the artistic skill of Sir Digby Wyatt or Mr. Ernest George. The real weakness of explanatory architectural drawing is best shown when it happens to deal with natural objects, in which mystery and infinity are always present. Viollet-le-Duc could explain a building so that you should thoroughly understand all about its stone-work, its carpentry and its iron-work ; but though he had a passionate love f

mountains and was himself a bold climber, he never really drew a mountain, but only reduced models of mountains, that might have been blocked out in stone by any intelligent mason. It would be very mistaken criticism to condemn the explanatory drawing of architects because it is incompetent to deal with nature: it is excellent for its own purposes, but the clearness of it is due to its rejection of natural truth; and it bears the same relation to the drawing of great painters that the squared logs in a carpenter's yard bear to a grove of trees, with the sunshine on the intricacy of their branches and the wind in their innumerable leaves.

Comparison of Pen-drawing with Nature. — The finest pen-drawings by great masters bear a certain relation to nature, but they are not nearly so imitative as the art has sometimes become in very inferior hands.

To make pen-drawing imitative its lines would have to be so delicate as not to be obtrusive. Distinctions of tone and local colour would have to be cautiously preserved by using ink of various degrees of dilution from pale grey to intense black. All rough sketching would have to be avoided; for as Nature is delicate everywhere and full of minute beauties, as natural things are always exquisitely finished, every strong stroke of the pen is a refusal to consider this minute natural beauty and finish, and is, with reference to Nature, as barbarous as the course of a plough through a bank of wild flowers, or the rolling of a cart-wheel over a procession of ants. Nevertheless, the boldly interpretative use of the pen which the great masters approved and practised is still, in a high intellectual sense, respectful towards Nature. It omits her minute auties, her delicate finish; but it observes the great truths structure, growth, tendency, and sets them forth with very w'erful emphasis. It suggests light and shade, sometimes goes farther and suggests local colour also, but it imitates i'ther. The hardness and definition of the black-ink line

are clearly a contradiction to the *morbidezza* of natural beauty; but intellectual art does not object to these technical departures from Nature, it acknowledges them and passes on — passes on to the expression of knowledge, to the construction of compositions. The great merit of the pen-line with reference to Nature is a freedom which permits it to follow easily the sinuosities of natural things. Imitation might be carried farther by its means than it generally has been in the works of the great masters, but it would require a foolish expenditure of time. One of the educational advantages to be derived from the study of pen-drawings by great men is that they so soon teach us the distinction between pure Nature and the expression of the human spirit.

CHAPTER XI.

AUXILIARY WASHES.

THE essential difference between auxiliary washes and independent work in water-colour is that such washes are only used to help linear work by giving it a sustained surface of shade ; they are not of any great complexity in themselves ; if the lines which sustain them were removed they would not present the appearance either of complete drawing or full modelling — they would look scarcely more than a beginning — a placing of broad shades before the real work of development and definition.

So strong is the mutual support of line and wash that the combination of them is a great economy of time. The line carries the wash and gives shape to it ; the wash bears out and fills up the line-work, and gives it consistency by bringing its scattered elements together.

The nature of this combination might be illustrated by many analogies. It is a principle, both of natural and artificial construction, that a rigid framework of some strong material may be advantageously employed to carry a more yielding material spread out upon it.

A boy's kite, the spars and sails of a ship, the fins of a fish, the wings of a bat, and many other things in natural products and human contrivances are constructed on a principle analogous to that of the line and the wash. In boat-building it is found that thin boards will do if they are sustained by ribs ; the thin silk of an umbrella is stretched on ribs of steel or whalebone ; and almost all cheap and light contrivances in

construction, from the booths at a fair to the Crystal Palace at Sydenham, are built on the same principle.

In a boy's kite the form is given by the skeleton of wood and string, which answers to linear drawing, but the area is filled up by the paper which gives a surface with no holes in it, light on dark, according to the tint selected, and the paper answers to the wash of shade that a draughtsman throws over his lines. The paper holds the wind, the wash in the drawing holds the shade, and prevents it, as it were, from falling through the interstices of the linear work, like water through a sieve.

The important point to be noted about auxiliary washes is that, if only they are harmoniously carried out, and not developed unequally and inconsistently, the *degree* of development in them as to modelling and light and shade, is of very little consequence. I mean that the *slightness* of an auxiliary wash is never, in itself, objectionable. There are many drawings in great collections, highly and justly valued, that are washed lightly. A good critic would never accuse an artist of indolence or incapacity because he had not thought it necessary to carry an auxiliary wash to any great development of projection, or to any great depth of shade.

There is an especial reason, in the nature of things, why artists often shrink from carrying an auxiliary wash far, and that is, the extreme danger of overpowering the linear work that lies under it. In a wash of sepia or Indian ink over lead-pencil, for example, the grey of the lead will soon be overpowered by the wash if it is not used in great moderation, and this is no doubt the reason why we seldom find lead-pencil and wash combined. In finished water-colours the lead-pencil lines of the first sketch are *intended* to be overpowered by the brush-work, and are so to such a degree that we scarcely detect them. When they remain visible, and important, the brush-work always both light in tone and slight in texture.

Line and auxiliary washes are employed together in great variety. They may be divided into two chief classes, line

wash, and wash on line. In the first method, the drawing is all strictly made out first, and the wash conforms to it, but no more ; in the second, the wash is laid first in shapes generally predetermined by a faint line in pencil, and forms are brought into stronger definition by lines upon the wash. The result may be apparently the same in both cases, and yet the mind of the artist operates very differently in the two kinds of work. When he draws the line first, he builds forms which are to carry shade ; when he puts in the line last he *brings out* the form. The first process is construction, the second is evolution. The first is more in conformity with mechanical processes, and is more convenient ; but the second, in which the forms *grow*, and come from a less to a greater degree of definition, is the process the more favourable to artistic conception and inventive thought.

The choice between one or the other of these processes is often determined by no higher a consideration than simple technical convenience. If the substance used for the line is very soluble in water, so that it can be easily disturbed, a wash will carry it away (unless applied like a glaze, with extreme lightness and dexterity), so that it becomes desirable to lay the line upon the wash instead of under it ; but if the substance of the line is insoluble, then the wash may be passed over it without inconvenience. Indian ink, though it can be rubbed easily with water to a state of wonderful diffusion, possesses the remarkable property, when used on paper, of resisting a second wash of itself, as if it were insoluble. On other substances, such as porcelain, it does not possess this property. However, as drawings are usually made on paper, a line may be drawn in Indian ink, and then freely washed over with a thinner tint of the same. Indelible brown ink is used in the same manner. It resists admirably, but the objection to it for line with wash is, that it is somewhat pale, and lacks body, at least in comparison with sepia, bistre, and umber, so that it is easily overpowered, and only bears light washes. This is a convenience when

colour is used, because then it is desirable that the line should not be obtrusive, and its golden brown tint is less incompatible with colour than black or even a stronger-bodied brown would be. For its own special purposes, that is, with light washes or with colour, indelible brown ink is most valuable.

The difficulty with most men who lay a wash over lines is to know when to stop. It ought to be simply auxiliary, like an accompaniment in music, for so soon as it usurps too much importance the brilliancy of the line-work is sure to be hopelessly sacrificed. The white spaces between the lines may seem to require sustenance and support, but if the shading applied with the brush goes beyond this, if it becomes in any degree an equivalent of the line, then the line gets drowned in it in the darker parts of the drawing, whilst it remains visible in the lighter, so that the work is no longer homogeneous, because the relations of line and shade are not the same in the different parts of it. If the reader will study the drawing in line and wash by Sir John Gilbert in this volume, he will soon perceive how moderately the wash is used, and with what care it is kept transparent, so as not to drown the line. Even in the photogravure, which, of course, is somewhat inferior to the original drawing in transparency, there is hardly a spot where the pen-lines are really lost beneath the wash.

If this principle of moderation is faithfully observed, the wash may be used over very delicate line-work indeed, such as that of the hard pencil-point. It ought to carry the drawing forward *in the direction* of light and shade, but it ought not to attempt either complete light and shade or complete modelling, for that is properly the province of pure brush-work. In any drawing which has utmost finish for its object, line-work, unless so delicate that it cannot be easily seen with the naked eye, is an intrusion and an impertinence. This is not the place to go fully into this question, but I shall show, when treating of engraving, what an interference line always is in the imitation of nature. On the other hand, in work that is intentionall

kept far short of actual imitation, line is extremely useful, and the more summary the expression of knowledge the more convenient the line becomes.

People whose knowledge of art is confined to pictures and highly finished engravings are but little aware how easily the great artists of past times contented themselves with very simple means when recording their ideas for their own use. Drawings, which to the popular eye would appear both empty and ignorant, were executed deliberately by men of large experience and deep knowledge, for the special purpose of setting down artistic ideas or intentions. In the Uffizj, at Florence, there are some drawings by Cambiaso, in pen and wash, in which the deliberate simplification of nature is carried as far as it possibly can be. Two of them, different ideas for a picture of Christ arrested,* consist of nothing but a very few strong ink lines, simplified even in their direction by many intentional omissions, and washed with little more than two flat tints of shade, dividing the picture (with the help of the white paper) into three degrees of light and darkness. The result is two perfectly harmonious and well-understood drawings, in which the action is dramatically given, whilst the composition is quite clear, and the light and shade fully suggested. The scene in which the soldiers are descending a road with trees, seems a riper and better conception than the other project with the bridge, but the execution is the same, and quite sufficient for the purpose in both cases. Nicolas Poussin has left many good examples of pen-drawing with slight wash. I may mention two, a Bacchante in the Uffizj,† and a Holy Family in the Louvre.‡ Nothing could be more simple than the method followed in these drawings, a rather broken pen outline, then very open shading, for the most part diagonal, but in some cases following

* Reproduced by Braun in autotype, and numbered 832 and 835 in his catalogue.

† Reproduced in the Braun autotypes, No. 949.

‡ No. 1254 in the Louvre Collection.

the direction of perspective ; finally, a series of flat washes, not giving more than about three tones. There is no attempt to render local colour, and all the lights are left white. In the drawing of the Bacchante one of the figures is put in with a flat brush shade, without any outline — a thing often done with distant mountains in sketches of landscape, because the hardness of the line brings objects too near.

Giorgione used pen and wash for strong divisions of light and dark. Two landscapes by him in the Uffizj are excellent examples of that effective elementary division of a landscape into light parts and dark parts, which in a more advanced stage of the art, when distinctions are more subtle and delicate, we are perhaps rather too much disposed to leave behind us and forget. Natural scenery frequently offers these simple divisions, especially under effects of a passing cloud, but in nature they are connected by intermediate shades. The process of simplification in such sketches as those of Giorgione consists in the omission of these intermediaries. Simplification of that kind is perfectly right and legitimate in sketches, and even to some extent, though not to the same extent, in finished pictures ; but it is desirable that we should understand it, and not mistake it either for adequate representation of nature, or for an unsuccessful attempt at imitation. In one of Giorgione's sketches of landscape * we have a dark distant hill, a dark foreground, and a brilliantly lighted middle distance between them, which is an effect very common in the Scotch Highlands ; in another sketch † of a bridge with two arches spanning a deep ravine, with water at the bottom, and buildings with a tower on the high ground to the left, there are bold distant hills beyond the bridge, and one hill is in light whilst another is in shade. The sky, again, is divided into a light space and a dark space whilst the precipitous sides of the ravine have their light hal-

* Braun's autotypes, Uffizj, 961.

† *Ibid.* 763.

and their dark half. I look upon these drawings as nothing more than experiments in elementary landscape chiaroscuro, but they are very interesting, especially for the time when they were done ; and it is certain that exercises of the same kind, with the same simple means, would be of great use to young landscape-painters at the present day, and even (as reminders) to artists of experience.*

In Claude, the combination of pen and wash took the appearance of more advanced art because in him the arrangement of a landscape composition began to have the certainty of a science. He often used opaque white, which is not easily harmonised with monochrome washes in water-colour. There is a drawing in the Louvre,† of the 'Rape of Europa,' which may serve as a warning in this respect. It is a pen-drawing in brown washed in grey, and touched extensively with opaque grey, which is horribly discordant and spoils the drawing. All artists should know and remember, that though monochromes are not done for colour they are still subject to its laws, and that foul or incompatible tints offend the eye in what is called a monochrome as much as they do in a picture. Another combination of Claude's is a mistake in taste. Sometimes he drew his lines in bistre and made his wash in Indian ink,‡ thus producing a discordance between the two elements which might have been easily avoided by using one pigment for both. All that can be said in favour of these combinations is that the wash, being chromatically different from the line, may leave it more distinct ; but an equal

* Chardin used to insist upon the necessity for directing attention to the broad divisions and oppositions of masses, because they are easily lost sight of in the confusion of natural intricacy and glitter. Broad washes in sepia, on a pen outline, in indelible ink, are the best means his end.

Catalogue, 737.

As, for example, in the drawing 741 in the Louvre.

It may be observed with reference to the same drawing, that the very rest columns are outlined in much darker ink than the others so as to something resembling the effect of a deeper biting in etching.

distinctness might be readily attained by having the line stronger, or the wash weaker, in proportion.

When Claude used pen and wash he sometimes left his distances outlined, and refrained from carrying any wash into them. There are two ways of treating distances in such drawings : either you may outline them and refrain from shading to avoid heaviness, or else you may shade them only with the brush and refrain from pen-work to avoid hardness and nearness. The latter is the better plan for a drawing intended to be shown, because the effect comes nearer to the softness and delicacy of natural distances ; but if the drawing is intended only for the artist's portfolio, he may prefer Claude's method for the more precise indications of detail which it gives. As examples I may mention the distant island in the 'Rape of Europa,' which is simply outlined, and some distances in the 'Liber Veritatis.'

The washed drawings in the 'Liber Veritatis,' which were done simply for themselves, and quite without reference to possible future interpretation by mezzotint and etching, were for a long time the accepted models of landscape drawing in pen and wash. In many respects they are very good models. The pen-work is not so clever and brilliant as that of some modern sketchers, but at any rate it is not 'mappy.' It is comprehensive, and properly sacrifices small delicacies and beauties which, though pleasing enough in themselves, tend to make both the artist and his admirers forgetful of large masses. With little labour and a few strong lines of the pen, Claude set a tree or a building on the paper, whilst a few broad washes sufficed to make his intentions as to light and shade perfectly intelligible. The drawings for Turner's 'Liber Studiorum' are shaded more elaborately, there is more modelling in them, more projection ; those of Claude are flat in comparison, but Turner's drawings were intended for the mezzotint engraver, so that the comparison is not quite fair. There is a study of a tree by Claude ✓ the Louvre* which is bolder and stronger than most of his com-

* Catalogue, 740.

posed drawings, because it is a simple study of an object, and the whole scale of light and dark is exhausted in representing that one thing. The purpose of the artist has been to disengage the lighted sides of the masses of foliage, which he has effected by boldly washing in the shadows. The foliage and trunk are in strong line of a decided and energetic character.

Immense numbers of drawings with firm lines and light washes were executed in the seventeenth and eighteenth centuries. In our own time they are less common, because the development of full water-colour, which is carried to completion without visible line, has led artists to sketch more on the principles of painting and in colour. Collections of old Dutch and Flemish drawings are rich in examples of pen and wash. Generally speaking, the wash is kept very subordinate; it is sometimes extremely pale and delicate, so as not to obscure faint lines. Adrian Vandervelde would lay light washes first and then complete the drawing in pen-lines, which were often strong and thick. In Rembrandt's drawings the wash is not often more important in relation to the lines than aquatint on an etching, and in some of them it performs the same office of uniting and sustaining the lines that surface-ink does on a plate which is artificially treated by the printer.

Many different kinds of line may be used in combination with wash. Some are preferable to others for reasons which may be given in this place.

The pen-line is the most commonly employed, yet it is not the most perfect. It is extremely convenient, because the pen is a firm instrument, which allows the hand to rest on its point, so that it does not require any great amount of manual lightness and delicacy; but it is hard and not very pleasant to the eye.

The pen-line consists of two hard boundaries, like the sides of a letter, with black fluid between them. Within the line itself there is no variety of definition, and there is no gradation; all equally definite, all is equally black. The line given by the point of a brush charged with thick water-colour is in all respects

preferable, especially if the paper has a grain so that the brush may drag and catch upon it a little. Unfortunately, the brush requires great skill, and even when the skill is there it requires constant technical care, which the pen does not ; so the consequence is that artists who are perfectly able to use the brush-point employ the pen instead. Still, the pleasantest and most perfect washed drawings are those comparatively rare ones in which the washes are laid first on a light pencil line, the firm lines of the ultimate forms being added afterwards with a brush. In these the process is harmonious, the same kind of instrument being used for both wash and line. The brush-marks may have another advantage over those of the pen ; they may be in slight relief, like printed etched lines, if a rather thick pigment is employed, whereas a pigment of that thickness would never flow from a pen.

There is a drawing in the British Museum by Mantegna which shows the principle of the wash and brush point in all its simplicity. It represents two men fighting with big clubs, one of them holding his weapon high in the air. They are drawn in outline, which is partially filled up with pale shading in wash, and this shading is supported by pale diagonal lines with the brush on the principle of the line-engraving of that time. Bolder and stronger work will be found in Tintoret's 'Massacre of the Innocents.'* Here the lines are in bold brush-marks everywhere, often thick, the washes are vigorous, but chiefly flat and all over the subject. No man ever made more frequent use of this combination (wash and point of brush) than our own Turner, but it was in his coloured work, and I prefer to postpone the examination of it till we come to water-colour.

Black chalk lines will bear a wash, and hold their own against it better than pencil. Lithographic chalk does not offer sufficient resistance to a wash, but it may often be of use when the wash is finished for retouching. Its line has a rich, &

* Also in the British Museum. Autotyped by Braun. No. 134 in his catalogue.

quality, which some artists like. It is useful for giving a granular texture when employed on slightly rough paper.

There is a fine example of black and red chalk in combination with bistre in the British Museum, by Rembrandt. The subject is 'The Almighty, accompanied by the Angel, appearing to Abraham.'* The drawing shows the great technical strength which may be derived from composite technical means. Rubens was a most powerful sketcher in chalk, and sometimes used wash along with it. As examples of chalk relieved on wash I may mention two studies of a man taking a thorn out of his foot.† The figure is drawn on rough, defective paper, in red chalk, and relieved on a background of light wash. By this means the background was kept very quiet and unobtrusive, greatly to the advantage of the linear drawing in the figure.

Lead pencil is good for the line, but only if the drawing is intended to be pale; as we have already observed, it is over-powered by strong shading. One of the best examples I remember is a river scene by Jan Van Goyen, in the Dijon Museum. The boats, church, windmills, &c., were drawn delicately, but distinctly, and then upon this drawing Van Goyen passed a slight brown wash, just enough to spare him needless labour with the pencil and to give a tender shadowy quality.

The *principle* of the line with the auxiliary wash may often be detected in classes of art where it is not avowed or looked for. It is found not only in various kinds of engraving, but also in pictures both in oil and water-colour. The effect of it upon those different arts will be examined in the chapters concerning them. For the present it is enough to observe that the effect of the principle is by no means confined to obvious cases. It runs in a more or less subtle way through many of the graphic arts, and acts generally as a relief from labour by making form and shade expressible together without great finish in either.

* Crachrode Collection, Oo. 10, No. 121.

† British Museum, Fawkener Collection, 5213.

Line drawings are sometimes not only shaded, but tinted and even coloured with the brush. I may mention as an example a drawing in the British Museum, by A. Van Ostade,* of a family scene in a peasant's house, where the brown pen-line is seen in combination with elaborate tinting in green, blue, purple, and red. Van Huysum made line drawings of flowers and fruit in brown ink on a ground washed with bistre,† the spaces so mapped out being afterwards appropriately tinted in water-colour. Tinting of this kind bears exactly the same relation to full colour that pale flat washes of Indian ink or sepia bear to full light and shade. They are not contrary to the truth, but within or below the truth, like the expressions of well-bred English people.

Comparison of the Auxiliary Wash with Nature. — The auxiliary wash on a linear drawing is not an imitation of nature, but a movement in the direction of natural quality. There can be no real imitation so long as strong lines are visible under the wash, and the principle is to leave them always visible. The extreme reserve, restraint, and moderation with which auxiliary washes are used keeps the artist safe from any laborious rivalry with the elaborate and infinitely graduated shades of the natural world. This is really one of the strongest recommendations of the method, for when a method obviously does *not* set up any claim to complete natural truth the artist has a security against falling into copyism. The very limitation of his means compels him to choose and think.

The wash is an approach to nature in this, that it gives the real quality of natural shade, which no linear shading ever can give. A delicate wash of Indian ink is shade itself. In many washed drawings, however, the shade is either quite flat or nearly so, whilst in nature it is tenderly graduated. To introduce anything at all equivalent to natural gradation in auxiliary

* Payne Knight Collection, Oo. 10.

† Dijon Museum, No. 1465.

washes would be to make them far more laborious than their secondary character requires. It is enough that they carry the mind *towards* nature as a ship takes us towards Jerusalem. The rest of the pilgrimage has to be accomplished by the mind of the spectator, in the exercise of its own powers.

CHAPTER XII.

THE SILVER-POINT.

THE silver-point is hardly ever used at the present day except by a very few persons who take an interest in the technical history of the fine arts, yet it was a favourite instrument of the old masters, and I expect to be able to show that they had excellent reasons for liking it. The disuse of the silver-point, after lead-pencils came into fashion, is one of the most curious details of technical history. It is wonderful that an instrument which had once been the servant of the most illustrious artists who ever drew on paper should have come to be neglected and despised by their successors, and neglected so completely that they lost the tradition of its use. Notwithstanding the tendency which prevails amongst us to attempt revivals of old arts, the silver-point is forgotten. Only two or three curious people in Europe know how it was used for drawing.

The abandonment of the silver-point is to be regretted because the instrument has peculiar and precious qualities of its own. It is a hard pencil which can scarcely be said to wear, which does not break or require cutting, and which gives a beautiful dark grey line of the most exquisite clearness and delicacy. It is just such a pencil as a lover of perfection in form would naturally be tempted to select, a refined stylus which literally and truly encourages refinement of style.

The silver-point is simply a little rod of pure silver thick enough not to bend under the pressure of the draughtsman's hand, and sharpened just to such a degree that it will make :

fine line on paper without piercing it. When set in a wooden holder this instrument strongly resembles an etching-needle, and the resemblance is not merely external, for the work done has similar though not absolutely identical qualities in both cases. Each needle is a true stylus, and it is the property of every kind of stylus to make a line which is of uniform thickness throughout. Is this an advantage? No, it is not; the brush point, with which a thin or a thick line, or a line thick at one place and thin at another, can be drawn by simply using different degrees of pressure, is a more obedient instrument than any stylus. Even the pen is better in this respect, that it will draw a thick line or a thin one, though it is far from having the suppleness of the brush. Nevertheless, as we have observed elsewhere, it is always a mistake to condemn any art as 'imperfect' when great masters have practised it. The arts they practised were often limited; they were never imperfect.

If the line drawn by the silver stylus were ragged and rotten, if there were no telling whether it would get safe to the end or stop half way like an ink line on greasy paper — or if instead of a continuous line it broke away into a series of dots at unforeseen distances from each other, like the lines in bad photographic reproductions — if it were accidentally thick or thin — if, in short, it were not to be relied upon by the artist, then silver-point drawing would really and truly be an imperfect art and deserve the rejection which has been its fate in modern times. No real technical imperfection of this kind would have been tolerated by Raphael or Leonardo; but as they found the silver-point sure and true they easily bore with its uniformity of line. We must remember, too, that the stylus could be more or less sharpened, and that the artist could keep two or three of

ferent degrees if he required them. The common practice, never, seems to have been to draw with one point, and that ther a sharp one.

The objection to the silver-point, which naturally suggests itself to the practical mind, is that silver does not mark paper.

On unprepared paper it leaves a mark so pale as to be useless for artistic purposes; but paper is easily prepared as it was by the old masters, and when that has been done the marks of the point are a dark grey, equivalent in tone to a hard lead-pencil, but resembling an etching in character.

A light wash of opaque white is all the preparation needed. The white may be tinted with any colour you please, or left by itself if you prefer it. The old masters amused themselves by preparing papers with the most various tints, which are often wrongly supposed to have been the work of the paper manufacturer.

It costs a little trouble to the artist to tint his own paper, but he has the advantage of getting precisely the shade and hues he likes best, and foresees to be most perfectly adapted to the intended drawing. The paper itself should be rather rough, it should have a slight grain, but it is not an advantage for it to be coarse in grain. It ought to be stretched as if for water-colour, and the preparatory wash laid evenly and rapidly with a broad camel-hair brush.

As the opaque white may be tinted, paper so prepared will take lights in pure white if the artist cares to add them at the last. These harmonise best with the lines of the silver-point when they are sharp and fine, and applied with the point of a small camel-hair brush. There are many instances amongst the works of the old masters in which these lines of white have turned black and spoiled the drawing. I may mention as an example of this a Peter Perugino* representing an angel leading a youth. The drawing is in silver-point, on a greenish ground, and what were intended to be high lights in thin sharp touches of white, are now black lines. It is probable that Perugino used one of the preparations of lead which, as Field observes, are in water-colour 'changeable even to blackness.' With modern preparations of zinc or barytes there would be no reason apprehend such a result.

The old masters not only touched the lights of silver-point drawings with white, but they also very frequently used auxiliary washes in shadows, exactly on the same principle as the washes on pen-drawings. These, of course, were kept pale on account of the delicacy of the line. In the drawing by Perugino, just mentioned, the shades are washed with brown. There is a lovely drawing in the British Museum, by Rogier Vander Weyde, of a lady with a sort of pork-pie hat,* an extremely delicate and careful piece of work in silver line with pale bistre shades.

Silver-point was sometimes used in combination with pen lines or touches; but although this combination is authorised by the example of illustrious men, such as Raphael and Holbein, I cannot think it a happy one, and all their skill and judgment were required to make it even tolerable. To borrow a metaphor from music, I may say that the note of the pen is harsh and loud in comparison with that of the silver-point; and though it may not be precisely discordant, it is heterogeneous. There is a sheet of creamy white paper in the Louvre, with beautiful studies of hands, faces, and drapery, by Raphael, in silver-point, but in a head the eye, lip, and neck, have been touched with a pen.† There is great prudence and discretion in the use of the pen here, and still one cannot help feeling that the silver-point would have done better without its too powerful auxiliary. There is a particularly beautiful drawing in the Louvre, by Holbein, drawn with a combination of silver-point, pen, sanguine, and auxiliary wash of Indian ink.‡ It is the portrait of a young lady, looking down with a smile on her face and the inscription ALS-IN-ERN on the border of her dress. The various means used in this drawing are combined with consummate art. It combines great delicacy of modelling with decision, and the decision is chiefly given by the thin but firm and thick pen-line.

* British Museum, D. Oo. 9. No. 2.

† Louvre, 322.

‡ Louvre, 639.

The combination of silver-point with sanguine is not so dangerous as its use with the pen, because the value of sanguine as a dark is not so great as that of ink, and is consequently more on a level with the grey of silver. Many readers will remember the exquisitely truthful studies of the hands of Erasmus, by Holbein, in the Louvre ; done, no doubt, when Erasmus sat for his painted portrait. Those studies are in a combination of silver-point with sanguine,—the clear precision of linear drawing being got in the silver line, and the suggestion of life given by the sanguine shade.*

Although silver-point is generally used for sharp lines it may be used, like a lead-pencil, for broader lines by inclining it or by sharpening it so as to make a broader stroke. There is a study of two draped figures by Sandro Botticelli in the British Museum † on a pink ground. In this the silver-point is sometimes used like a line with a broad lead-pencil.

The most refined beauty of the silver-point is reached when the lines are thin and clear, and there is no necessity for them to be dark, or strengthened by any foreign help. There is no more lovely drawing in the world than that of some thoroughly accomplished master when he is confined to pale tones, because then he gets relief and projection by delicate skill and not by main force. It was one of the best results of Italian culture to produce and appreciate this refined kind of drawing, but even in the northern schools there are good examples of it, the main difference being that in the northern work the line itself is never so elegant as in Italy. For delicate drawing in its perfection, both as to line and shade, I know of nothing to beat two pro-

* Marked 517 and 518 in the Louvre Catalogue. I observe that the Catalogue says the studies are in silver-point, sanguine, and *pierre noire*. Lest this should mislead, I ought to say that the studies of hands referred to in the text are in silver-point and sanguine only. *Pierre noire* was used exclusively for another and more rapid sketch of a hand on 517, and for the slight outline sketch of Erasmus on 518.

† British Museum, D. Pp. 1, 24.

files of a child in the Louvre,* exquisitely drawn by Leonardo with the silver-point on blue-grey paper and relieved in white. The upper profile shows the upper lip, in the lower one this is hidden by the cheek ; in both, whatever is seen of the features is modelled with more real success, though in very pale tones, than many a 'vigorous' drawing in chalk, and than many a boldly-blackened etching. There is an extremely pale drawing in the same collection, by Vittore Pisano, of a man with a serious, almost ill-humoured face looking to his right. It is most beautifully modelled, yet there is not a dark line in it, and the drawing is hardly visible at a little distance. Albert Dürer's pure silver-point drawing of Cardinal Albert of Mayence† is like a piece of delicate engraving, and quite strong enough, there is no need for more blackness. So in the British Museum there is a fine head, by Domenico Ghirlandajo,‡ with long, wavy, flowing hair, and a skull-cap. It is delicately shaded in diagonal lines like an old Italian print, and the whole drawing is pale, on paper tinted with a very pale brown. Hundreds of other examples might be quoted to show how little the great masters felt the necessity for deep blacks in their drawings.

The reader will understand, of course, that in denying the necessity for black, I am thinking of drawing only and not of chiaroscuro, though even under certain conditions of natural effect there may be very perfect chiaroscuro without black, or anything like it. Still, drawing and chiaroscuro are two very different pursuits ; the object of drawing is form, the object of chiaroscuro is a sort of music in which lights are the treble notes, and darks the bass, just as colour is another sort of music with hot tints and cold ones. I find that when people who have not thought much about these matters hit upon a drawing which

* These drawings do not as yet (1881) bear any number in the Louvre Collection.
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† Numbered 500 in the Louvre Catalogue.

‡ British Museum, D. Pp. 1, 26. This drawing was attributed byagen to Filippino Lippi.

is done purely for form, they are likely to say that it is 'weak,' meaning that the shading of it is not dark enough. There is no discipline better calculated to correct this error than the study of silver-point, and of pure form through its means. A good silver-point drawing may include a moderate degree of shading, but only for the expression of form ; the study of chiaroscuro is better carried on with charcoal or sepia.

Comparison of Silver-Point with Nature.— All linear drawing is an interpretation only, and when the line is hard and clear, as it is in silver-point, the interpretation is sure to be remote from the real aspect and texture of natural things. Silver-point, as practised by the best masters, can scarcely be said to come nearer to nature, in the sense of imitation, than primitive old line engraving, which (as we shall have occasion to show later) was very remote indeed from anything like imitative completeness. The advantage of silver-point as a discipline is not that it makes us imitate the aspect of nature as it is, but on the contrary that it forces the artist to practise a high degree of abstraction. The instrument is admirably adapted for the rendering of pure form, and it is best adapted for the purest and best form. A very refined and sure draughtsman of the figure, with a well-shaped model before him, will find the silver-point delightful ; it will be to him like a chisel, and his prepared paper like marble, on which he will delicately carve the lines or swellings of face or limb in a determined degree of relief. But, perfect as the silver stylus is in the hands of a form-draughtsman, it is of no use to the colourist or the chiaroscurist. I mean that if the colourist desires to interpret in black and white the full values of local colour he will find the range of the silver grey too limited for him, and if the chiaroscurist wants the gloomy and mysterious effects of nature, he will not only find the silver grey too pale, but the line too hard and definite for his purpose. So the conclusion is that the silver-point is a draughtsman's instrument and that it only interprets a part of nature. It is favourable

classic form, which is harder, clearer, and more definite than nature, but it cannot deal with mystery and depth. Let us ever remember that limitation of means is not an evil in the fine arts ; the real evil is in their misapplication. A good silver-point drawing is sufficient in itself, and we no more desire to blacken its pale beauty than we desire, under pretext of more perfect truth, to strengthen some delicate sonnet with violent verses from a tragedy.

CHAPTER XIII.

THE LEAD-PENCIL.

THE fate of the different graphic arts is strangely and variously affected by changes of fashion and accidents of invention. The pen was always an artist's instrument, but the use of it never increased so much as between the years 1865 and 1880, and the increase was not due to any more general appreciation of its merits, but simply to the photographic processes of engraving which were brought to perfection between those dates, and which reproduced ink lines more certainly than any other. The lead-pencil, on the contrary, was less cared for, and less used, comparatively to other instruments in the eighth decade of the nineteenth century than in the sixth and fifth. Very few artists of the present day (1881) make a high degree of skill with the lead-pencil a special aim in itself as Harding and Ingres did. It is, of course, very difficult to know what may be done now in private studies which remain unseen in portfolios, but a French artist affirmed, probably in ignorance of certain works by Professor Legros, that the last French figure-painter who used the lead-pencil in its severe and serious perfection, was Gérôme, and that his best work with that instrument was done before the fall of the Empire.* Very charming

* Amongst living artists of serious purpose and high accomplishment who use the lead-pencil habitually I ought to mention Mr. Burne Jones. All his recent drawings are in very pale lead-pencil, answering exactly to the silver-point of the old masters. We were anxious to have one of them reproduced for this volume, but the delicacy of these drawings made the enterprise almost hopeless. Of all drawings those in pale lead-pencil

work has been done since then by Maxime Lalanne, both in France and Holland ; but that, of course, is less severe. The pencil is still very extensively used for sketching, as it is extremely convenient for taking memoranda from nature ; but pencil-drawing as a separate and independent art is not greatly valued, nor even appreciated at its proper worth. Photography has not encouraged it, for it is difficult to reproduce pleasantly in any but the most expensive kinds of photographic engraving, and although it is much employed in drawing upon wood, the impressions from the engraved block do not preserve a trace of its peculiar quality.

Drawings in lead-pencil may be divided into three distinct classes, which answer very closely to drawings in other materials.

First you have the pure line with the point. A hard pencil is usually prepared for this, and the result is a very near approximation to the qualities of silver-point. The lead-pencil is, however, inferior in convenience, as the point is constantly becoming blunter, which the silver-point does not, perceptibly. The pencil, therefore, requires incessant sharpening for delicate drawing, which is a tiresome interruption. There is this compensation to be considered, that the work may be effaced, which silver-point cannot be.

The hard point is most valuable for sketching details, and this for a simple reason of a material nature which will be easily understood. A soft pencil will not give a fine, sharp line, and when the line itself is broad, it occupies a great deal of space on its own account, and cannot turn round little things without either filling them up or making them bigger than they ought to be. For example, if you try to draw the letter e of this type

sent the greatest difficulties to the photographic operators. We tried a very beautiful one by Gérôme, one of the most perfect he ever made, the delicacy of the drawing was such that the defects of the paper overpowered it in the photograph, and the experiment had to be abandoned.

with a thick line — say with a line a tenth of an inch broad — one of two things must happen, either you must fill up the little open space in the letter, or else, if you respect that, you must increase the size of the letter externally by a black border added to it. I may go even farther and say that nobody *could* draw the letter with a thick line on this scale, for the line would be sure to give false forms. So it is with the details of architecture, or anything else. All details in a drawing on a small scale must either be in fine, hard lines or not drawn at all. I do not call it drawing of detail when a piece of delicate sculpture on a cathedral is represented by a shapeless spot of black lead.

In obedience to this necessity (it is a matter of pure necessity and not of choice) every artist who wishes to put many small details into a drawing must use a sharp thin line and a hard point. This is why we find so many point-drawings amongst the studies of Turner. The plain line on white paper, quite firm and clear, not obscured by any linear shading which would set up a contest with the organic lines, this is what records the greatest number of details in a given space. Such drawing has, of course, no pretension whatever to developed form, or local colour, or chiaroscuro. It has but one purpose, which is to state in clear language how things are made, and not how they appear.

This is another of those numerous instances in which a partial expression is most readily accepted by those whose knowledge is most complete. Few artists when using the brush have been less linear than Turner; few artists have been better acquainted with the laws of effect and with the art of representing it,* and yet he was a steady practitioner of point-drawing which is an interpretation of nature, by abstraction, on principles directly opposed to the synthetic interpretation by painting.

The pure hard line may be preserved in pencil drawing a

* I do not mean that he always observed the laws in his own practice but he noticed them in nature. He observed them so far as they seemed to him compatible with the interests of his picture.

entirely dominant and yet be sustained by a suggestion of shade lightly spread with a stump. Here we have, in another material, exactly the same thing as the flat wash with the pen line upon it. The wash is often preferred to stumped lead in combination with clear pencil lines. The great object is to have the shade flat and delicate in quality, with no lines in it to make a confusion with those of the pencil. Such auxiliary shades, whatever the material, ought always to be strictly subservient, and not to obscure the organic lines on which the constructional strength of the work depends.

Pencil drawings are often composed of strong lines used in combination with soft shading which is neither applied with a stump nor yet precisely linear. The greatest danger of this manner is that the shading may become too predominant and too black. Notwithstanding the success of the pencil manufacturers in producing very black lead-pencils, it is still true that the blackest shades of lead are unpleasantly opaque, and that they have a shining surface which makes them inferior, for artistic purposes, to the fine dead surfaces of charcoal or black chalk. Again, however black a lead-pencil may be, it is never so perfectly black as some other materials, so that it is useless to set up a contest with other arts in that direction.

The commonest use of the lead-pencil is neither in pure line nor in any intentional and settled combination of line with shade, but in a careless play from one to the other. The clever pencil sketchers of buildings and landscape who seek for what is picturesque, and who value animation of manner more than severity of study, draw form and effect together, or so much of both as they think necessary. Their work is not so much an abstraction, like the pure line, as a selection from the whole field of nature, and a synthesis of the qualities selected. There is nothing to be said against the system, but it can never develop that exquisite sense of form which the discipline of the hard point favours. Here we have the old antagonism between the beautiful and the picturesque. Synthetic sketching, with its

love of broken line and its interest in effect, shows the picturesque aspect of the world, whilst careful drawing in sustained line gives us the beautiful, or rather, perhaps, expresses that intellectual beauty which is more in the mind of the artist than in the aspects of the things he sees.

Harding said that the pencil did not imitate local colour well without much labour, and that 'such imitation, unless it could be done with judgment, should never be attempted.' The objection to local colour applies in an equal degree to light and shade. There is no reason in the nature of the material why an artist who uses lead-pencil should absolutely reject either local colour or light and shade, but there is a good reason why he should deal cautiously and reservedly with both. The reason is because form is easily overwhelmed in the darkening of paper by rubbing lead upon it, and because the material does not permit of any very pleasant or cleanly recovery of form when once it has been obscured. It can hardly be necessary to point out the clear distinction between the sort of shading which is enough for modelling, for the expression of roundness, and the full, strong shades of nature. Plenty of modelling may be got in pale tones, as we have seen in several drawings with the silver-point, but that is not light and shade in any complete sense. It may simplify matters to reject local colour entirely and give rather strong light and shade in its place; but since full light and shade involves much blackening of the paper, which is what we desire to avoid, the rejection of local colour would be but a partial gain. Surely the most philosophical plan is to recognise local colour without insisting upon it: to explain that a black skull-cap is darker than the white hair of an old man without attempting to rival the real blackness of the velvet. In the portrait of Constable, drawn by Leslie and prefixed to the biography, the blackness of the cravat and coat is clearly indicated in comparison with the white of the collar, but it is not imitated. Again, the white of the collar is detached from the tone of the complexion by delicate shading; and yet, when w

come to examine the drawing closely, we see that the paper is left to do duty both for the collar and the lighter parts of the face, though in nature they could not be of the same tone. This, then, is an instance of what I should call mitigated local colour and mitigated shading in the same work ; and this mitigation of the strong contrasts of nature is, I believe, the most judicious and learned manner of dealing with the difficulties of lead-pencil. In the portraits by Ingres, which are models of excellent drawing, it is quite true that the coats were left white, but this was simply because he did not choose to finish them. The proof that he did not systematically eliminate local colour is that he gave it in the hair and eyes. It is quite plain that he was glad of the spots of dark in the eyes and under cravats, and generally in any little dark place such as a hollow under a chin. The flesh was delicately shaded so as to suggest flesh colour and not plaster of Paris. In the portrait of Ingres by himself,* the black cravat has its local colour, and that of the velvet coat-collar is indicated. I do not see how portraits of that class could have gained in any way by the abolition of local colour ; which is certainly of use, with the discretion of the master, in suggesting some of the contrasts and oppositions of nature. On the other hand, complete local colour everywhere on the dress would have been heavy and tiresome.

To relieve this heaviness of the pencil shade artists often have recourse to tinted papers which suggest a great deal of local colour when lights are detached in opaque white applied with the brush. The paper then serves as middle-tint all over, the pencil gives darks, at least to a certain extent, and Chinese white the lights ; a plan which both economises labour and permits a nearer approach to the truth of nature. Every amateur as experienced the sudden sense of increased power which comes upon an artist when he passes from white to tinted paper, and detaches great masses, such as those of a mountain, by

* The admirable pencil drawing marked No. 1829 in the Catalogue of the Louvre.

scumbling a light opaque wash on the sky behind them. We have seen that the old masters very frequently tinted their papers for silver-point and relieved the lights with white ; a plan which in our own day has been most extensively followed in popular lithography. In the choice of papers for this purpose we have to be on our guard against our natural tendency to have them far too dark. The white lights look brilliant on dark paper, but they may look *too* brilliant, and the lines of the pencil may easily appear too pale. Notwithstanding the example of the old masters who prepared their papers with all sorts of unlikely tints, even with pink and green, it is evidently most reasonable to choose tints which serve simply as degrees of darkness, and attract little attention in themselves. Delicate greys, warm or cool, as the subject of the drawing may seem to require it, are always the least objectionable. We sometimes meet with studies in pencil on cold blue paper, which makes the whole drawing chilly, and gives it a particularly miserable appearance if there are nude figures in it. Of course I do not wish to imply that the tint of the paper is to take the place of colour, but it may suggest colour associations remotely to the mind. There are tints of paper which slightly suggest flesh and which give warmth and life to a drawing of a face which would look ghastly on green or blue.

Whatever be the tint selected, it is well to remember that it can never be anything more than a flat tint, and that the suggestion of modelling must be added by careful drawing. The paper does something, it saves some trouble, but the help it gives is slighter than it at first appears, on account of its inevitable flatness. To remedy this, some ingenious paper-makers have tempted amateurs with gradated papers, presenting a ready-made blue sky passing down in regularly diminishing blueness from the zenith to the horizon, where yellow land (easily turned green with a wash) went up to meet it, and white clouds might be obtained by scratching with a penknife. These devices are vain and futile. Nobody can put a gradation on a drawing

suitable for the subject, except the artist who knows exactly what his own intentions are.

Besides tinted papers intended to suggest local colour by opposing it to high applied lights, papers with a moderate tone are often employed when there is no intention of putting any lights upon them at all. Ingres did not make his pencil portraits on crude white paper, but on a yellowish tone, just dark enough to bear up his work without taking the light out of it. Absolutely pure white makes a drawing look meagre and cold, a slight warm tint prevents this; but if the tint is at all excessive, the lights in the drawing go out.

Notwithstanding the frequent practice of very eminent men, it may, I think, be taken as a certainty that pencil drawings of a really high class are better without white lights added with the brush. There can never be any real harmony between brush touches and pencil lines, besides which the pencil is an instrument of quite sufficient delicacy and power to be enjoyed for itself alone. Nobody is ever so barbarous as to put white touches on a delicate engraving, which, though its lines may be finer, is certainly not more delicate as an artistic expression than the pencil-strokes of any artist who can truly see and feel. Common and cheap as the lead-pencil may appear, it is truly an artist's instrument, with powers of expression only limited by those of the man who holds it, and it deserves to be respected for itself.

If opaque white is used at all in combination with pencil, it must be on parts of the paper which are quite clear of black lead, for if it passes over lead, or gets mixed with it, very objectionable false tones are produced. These are common enough in drawings upon wood, but there they are of no consequence, as the drawings are cut up by the engravers.

Smooth papers are suitable for delicate line work with the hard point, even Bristol board is not too smooth for that, but as general rule papers with a fine but perceptible grain are the best agreeable to work upon. Some artists even use *papier râgé*, which has a strong wire-mark, but this is not of any

advantage, except that it prevents shading from looking too opaque by leaving white lines in it, in the wire-marks. These lines, however, have a mechanical appearance, which is not desirable in a work of fine art, and in my opinion *papier vergé* ought to be rejected not only for pencil but for all kinds of drawing whatever. It may be used for printing etchings, but that is a different matter, as in plate-printing the pressure flattens the paper, and the roughest papers become smooth upon the copper.

When soft pencil is used on rough paper the consequence is that the molecules of lead are caught upon the hillocks of the paper, and do not get down into the valleys between, so that the lines, instead of being really continuous, are a succession of small black spots. This broken effect is liked by some artists, because it avoids hardness. There is in the British Museum a grand pencil study, by Bonnington, of the stem of a ship with a shield of arms and two anchor chains, the side of the vessel with her ports being seen in perspective; this, like several other sketches in the same volume, is on rough paper and in black pencil, but there is also evidence that Bonnington knew the value of smoother paper when he wanted finer lines, as there are studies by him in hard pencil much more minute and definite, and the paper for these has a fine grain.

Almost all styles of work in pencil resolve themselves, on analysis, into a very few elements. Bonnington, in his coarser work, used line, grey shade, and a certain black touch which gave accent. He sprinkled those black touches very freely over his drawings, wherever the subject gave an excuse for them. Prout used bold lines and dots, he was a very strong mannerist, and not a desirable model for everything, though he rendered good service in his time by awakening the sense of the pictur-esque. In the first half of the nineteenth century a very common mannerism amongst picturesque pencil-sketchers in England was to finish the line either with a dot or with a sharp curve, which gave a sort of apparent decision and spright-

lineness to the work with little reference to nature. This mannerism may be found even in the elegant drawings of Henry Edridge. Except this fault, which is not very unpleasantly conspicuous, a drawing of 'La Tour de la Grosse Horloge, Evreux,' by that master, is one of the best pencil drawings, with little shading, that I know.* It would have been better still had it been a little quieter, and not so demonstrative of manual dexterity; but it perfectly expresses the character of the street picturesque in France by means of broken line and a very slight suggestion of shade. The tradition of this kind of drawing has survived to our own time, for Lalanne is at least equal to Edridge in grace and vivacity, and in the skill with which he interprets streets and towers. Another tradition, which is not a survival but a revival, is that of the severe figure-drawing in pencil which is now practised by M. Legros, and which is founded upon old silver-point drawing of the noblest kind. There are some admirable examples of his work in the Museum at Dijon, his native place. Those drawings are in thin line with sober shading, chiefly diagonal, and on slightly tinted paper of a warm tone. They might be hung in the Louvre, amongst the great Italian masters, without offending any one, for it would be difficult, even there, to find sounder examples of self-direction and self-restraint in drawing.†

Comparison of Lead-pencil Drawing with Nature. — The lead-pencil may approach more nearly to the qualities of nature than the pen, because when cut broadly and a little aided by the stump it will produce a series of grey tones without lines resembling the textureless shades of nature.

* In the British Museum. Reproduced by Mr. Dawson and published in the *Portfolio* for December, 1880.

† The drawings alluded to are—1, A study of a head with a beard; 2, a lady reading a book; 3, A nude female, seated, holding up one arm resting on one hand; 4, A female figure, nude, seated, with the palms of the hands turned upwards.

For all purposes of interpretation the pencil line is as good as that of the pen. The draughtsman with the pencil has the advantage that he can imitate tones truly within certain limits with the side of his pencil and, at once, without changing the instrument, interpret with the point on the principles common to all point-drawing.

The imitative inferiority of the pencil to some other means of representing nature is that its range of tone is not so great. The very darkest black-lead, rubbed till every pore of the paper is choked up with it, is after all nothing but a grey between silver-point and black chalk. The paleness of black-lead is hardly credible until demonstrated by contrast, but a little *crayon Conté*, or a drop of ink by the side of it, soon gives the true measure of its depth. Besides this there is the additional inconvenience that the black-lead shines, and wherever it does so all the relations of tone go wrong together.

The want of depth is only an obstacle to the imitation of nature, as excellent interpretation is possible in pale lines. The true office of the lead-pencil is therefore to interpret by line with a moderate use of tone, and it ought never to attempt full tone. It should be considered as a kind of silver-point, with the additional convenience of flat or gradated auxiliary shade. The finest and most valuable lead-pencil drawing is sparing of shade. It leaves all the higher lights in blank paper and avoids great spaces of strong dark, giving darks only in small spaces, thereby making them seem darker. It does not attempt much imitation of texture. Local colour it suggests, but does not try to follow out to its full consequences. In short, the office of the lead-pencil with regard to nature appears to be interpretation combined with strictly moderated and limited imitation. The taste and knowledge of artists is shown in the restrictions they place upon themselves in the presence of nature, when the instrument in their hands requires delicate and discretion, so that its limited powers may not be overstrained and abused.

The reader may again be cautioned against the erroneous criticism which condemns limited means as 'imperfect.' A man's voice is not imperfect because he cannot sing all the notes on the piano. The lead-pencil is a perfect instrument of limited range. The wonderful improvement in its manufacture invented by Mr. Brockedon * gave us pencils without grit, which are as perfect as if they were darker and softer silver-points. The very cheapness of them, and their uniformity of sound quality, make them less appreciated than they deserve.

* Mr. Brockedon's invention consisted in solidifying the powder of graphite by hydraulic pressure, which allowed the graphite to be freed from the presence of grit, and cheapened pencils by using material that would have been otherwise unavailable. Another improvement has been introduced by Mr. Faber, who provides artists with long leads in holders, so as to avoid the troublesome necessity for cutting. These are most useful for hurried memoranda from nature, as they spare us an intolerable interruption.

CHAPTER XIV.

SANGUINE, CHALK, AND BLACK STONE.

BLACK chalk is natural or artificial. Like lead-pencils chalks have been improved by artificial processes of manufacture, as the natural product is not always free from grit, which the manufacturer carefully expels. Field tells us that natural black chalk is 'an indurated black clay.'

The old masters used a black which they called black stone, or Italian stone. The black stones employed by them were native minerals, probably of different chemical compositions. The number of black minerals which might be used for drawing purposes is considerable.

Black chalk has two advantages over the lead-pencil. It is very much darker, and shading produced with it does not shine. It is, however, greatly inferior to lead-pencil in precision and delicacy of line. A hard pencil could define quite clearly and precisely many minute delicacies of form which a chalk line could not possibly follow. Much of the inconvenience which might be occasioned by this inferiority is avoided by making chalk drawings on rather a large scale, whilst the lead-pencil is used for small works, such as drawings on wood, where delicacy of line is of more importance. The increase of scale permits the use of a clumsier instrument. Chalk may often be used for small sketches if minute details are not required.

Artists who have not been accustomed to use chalk find it difficult to get over the clumsiness of its point, which remains tolerably sharp only for a very short time, and very easily breaks off, in which it is exactly the opposite of the silver-point:

Sanguine, Chalk, and Black Stone.

lead-pencil occupying an intermediate position between two.

This defect in chalk would be very serious if point-dra....
were its chief use, but it is not so. Chalk is understood to be rather a rude instrument for point-drawing, but to have other and compensating qualities.

The line which can be made easily and naturally with chalk is not very thin and sharp, but of a charming quality. On paper perfectly suitable to it the gradations from comparative clearness to a crumbling texture are not only agreeable in themselves but they recall one of the most charming qualities in nature — the passage from the definite to the less definite — visible in all natural objects which are seen together, and not purposely and wilfully isolated. Skilful draughtsmen, accustomed to the peculiarities of chalk, obtain with it a sufficient degree of clearness for moderate definition, but do not care to have all lines thin and clear, because thicker and softer lines are often nearer to the *morbidezza* of nature. The chalk-line differs from the pen in this that, whereas in the pen-line two hard outlines enclose a black space, in the chalk-line the space is not enclosed by rigid limits, but dies away in a sort of crumble, thereby approaching much more nearly to the sought-for vagueness of the mature schools of painting.

The darkness easily attainable in chalk permits its use on dark-tinted papers, which extinguish black lead completely. Pale lines, such as those of silver-point and hard pencil, may be used efficaciously on tinted papers, but they must be light in tone ; dark papers make the drawing look as if all its lights had gone out, because the lines are not dark enough to make them light by contrast. The darks of chalk being exceedingly deep,

make the lights efficacious even when the paper is not light itself. I do not, of course, speak of the highest lights, or of tints, which are usually added in white chalk.

It is a convenience, in working from nature, to be able to use darker dark tinted papers, as they spare the eyes in sunshine.

It is even possible to work upon them comfortably without a parasol, when white paper would be blinding. This is a practical reason why landscape sketchers may prefer chalk to pencil. Another reason is that chalk gives a finer range of tones with the stump.

The principle of line and shade which we have seen adopted in the pen-line and wash may be acted upon with great advantage by the draughtsman in chalk, without having recourse to any other material. He can get all his quiet lineless and textureless tones and shades with the stump, and then lay lines upon them where they are wanted to express character or define form. The technical harmony between the stump shade in chalk and the line, also in chalk, which is drawn upon it is complete, which cannot be said of all combinations. For example, chalk and wash will go together, but they are certainly less harmonious. The brush-line is what goes most harmoniously with a wash.

Chalk has been used abundantly by artists until the last few years, when charcoal has in some measure superseded it. The difference between the two will be stated in the next chapter. Chalk has an important position as the parent of another art, which was of very great importance before the invention of photographic engraving. One great department of lithography is an imitation, and often a marvellously close imitation, of chalk drawing.

Not only full tone, but considerable vigour and truth of texture, may be got in chalk by a skilful artist. In this quality it is greatly superior to lead-pencil, silver-point, and pen-and-ink. Eminent painters, however, are rather apt to neglect texture in their drawings, even when their paintings show that they thoroughly understand it. Texture, as a subject of study, has been carried farther by lithographers. All the qualities of chalk are shown in perfection in good lithographs, which is a convenience for students who have not ready access to original drawings. Painters use chalk in a more secondary and subordinate way.

they do not care to develop *all* its technical resources, but they accept readily enough those which present themselves without research. As an example of excellent rapid painter's work in black chalk, with nothing else to help it, I may mention a wonderful study of an elephant by Rembrandt,* remarkable for its economy of labour. The lines of shade follow the wrinkles of the animal's skin, and are at the same time shading and explanation. If you compare that study with any first-rate modern lithograph, in full tone and texture, you will at once see the difference between the easy, careless use of chalk, and the laborious following out of all its possible qualities. So in modern landscape work, if you compare the chalk drawings of Constable,[†] which he made for his own use, with the lithographs of Harding, which he made for publication, you will understand the difference between the simple, straightforward work of an artist who was only thinking about nature, and the showy performance of one who was thinking about his own clever methods of interpretation and his own almost unrivalled manual skill. Plain chalk drawing may be of the greatest use and convenience to painters, but it is quite unnecessary for them to bring it to any technical perfection. The best of them use it anyhow, and often with much simple force and originality. One of the best recommendations of Millet's numerous chalk drawings is their simplicity. He did not work for any elaborate texture or modelling, but got his forms well together by light, tentative strokes, and then, being sure of all his main proportions, put in the principal darks boldly, without attention to minute detail. His style of drawing conveys the impression that it was done from

Brauer



* British Museum, D.

† A few of Constable's chalk drawings were reproduced in *L'Art*, xiii. p. 171, &c. to illustrate an article on Constable, by Mr. Frederick Edmore. The reader may use such reproductions for reference, but should remember that they are generally very much coarser than the originals. The study at p. 173, of a river flowing through a plain, which is separated by a wood from distant hills, is very simple, but it contains the chief elements of a fine and impressive landscape.

memory, so much is sacrificed, and so the chalk was a more suitable instrument for him than the pen or the etching needle, because it is richer in itself, and better prevents the appearance of vacancy. In the noble drawing of the 'Faggot-makers' (two men making a faggot in a wood, and a woman half carrying, half trailing two others) the paper is furnished by the mere thickness of the strokes, there being very little detail, whilst heaviness is prevented by the white depressions of the *papier vergé* showing through. There are numbers of slighter drawings by Millet in which the chalk is used more openly, and simply as a darker sort of pencil, leaving the white paper free in large spaces of sky or ground, and showing how little he thought it necessary to produce complete pictorial chiaroscuro. The 'Deux Faneuses' was a good example of this class of drawings.* Two women are raking hay in a field, where the sky and the sun-lighted ground, as well as the lighted parts of the dresses, and of a large haystack in the background, are all left in pure white paper, as they might be in an etching, without any recognition whatever of local colour, or of pale shades, though both might be given very accurately in chalk if the artist chose to employ his time for that purpose, but the linear composition is just as good without them.

In studies from nature black chalk is often used in pure line, as if it were a hard pencil. Some excellent studies of this class were made by Edmond Hédouin for his picture of buckwheat-mowing, 'Faucheurs de Sainfoin.'† The men are represented in various attitudes with their scythes, and so linear is the drawing that there are always two lines for the woodwork of the scythes, except where a strong shadow is cast upon it. Why chalk should be preferred to pencil or pen for studies of this class I do not see, unless the artist thinks that its crumbling texture prevents hardness and makes the drawing more nearl

* This drawing was in M. Alfred Sensier's sale, where it bore the number 236. It was reproduced in *L'Art*, vol. xi. p. 190.

† Reproduced in *L'Art*, vol. xi. pp. 30, 31, 32, 33.

related in quality to the painting which is to be produced from it. The preference for chalk is the more curious in M. Hédouin's case that he is perfectly accustomed to the clear and sharp line which he uses with very great skill in etching.

I have said that chalk might be sustained with a wash. If any wash is used Indian ink is the best, as it is never desirable to set up a chromatic opposition between the lines and the flat shades which are to sustain them. Millet often washed his chalk drawings partially, and sometimes rather extensively. The fine drawing of the Faggot-makers is washed on the left, flatly, the wash going over some tree-trunks and coming down upon the foreground, but it is resorted to sparingly. Another fine drawing by him of a man on horseback struggling against a gale of wind on the sea-shore is washed much more extensively, and in three or four different tones, so that here the chalk lines may be, and are, more meagre. Washing of this kind answers precisely to ink left on the surface of a plate in printing etchings. It is positively the same thing, so far as artistic results are concerned.* Whenever the wash is resorted to it should be kept well subordinate. The best use of it is to extinguish a multiplicity of little lights, quietly and unobtrusively. When rough paper of a very light colour is used, such specks of light are extremely numerous, and must be put out in some parts where they are not wanted. In grey and other toned papers they are much less injurious, because the papers themselves lower them.

Black chalk on grey paper has one immense advantage over lead-pencil. It can be accompanied by perfectly harmonious lights in white chalk, which has all its own characteristics except darkness. Lead-pencil has no such friendly opposite, for white chalk does not resemble it, and white applied with the brush also technically discordant. The opposition of white and black

* I do not know in whose possession are the two drawings by Millet mentioned above. I have not seen the originals, but Braun's autotypes are so good that one knows everything from them, even the nature of the e-marked *papier vergé* on which Millet drew.

chalk on grey paper has been resorted to by innumerable artists, amongst them by masters of the greatest eminence. There are only two rules of importance to be attended to in this combination ; one is to take care that the paper is not too dark, for if it is the lights will stare ; and the other is to mind never to mix the two chalks together on the paper, as their grey is almost certain to set up a conflict of its own with the tint of the paper, and to appear *louche*, as the French say. The qualities of black and white chalk will be familiar to every reader, as their effect has been ably reproduced in thousands of lithographs. Original drawings are generally rougher and more straightforward, some of the finest being very rapid and energetic indeed. Turner used the two chalks very frequently in landscape sketching — even in drawing-books, where they easily got rubbed off, more or less, by the friction of the pages.* It is an inconvenience that white chalk cannot be fixed without weakening it. I do not remember any studies in white and black chalk more recommendable (as technical examples) than those of Prud'hon. They are not dashing things — there is no bravura of style about them — but they are inspired by a genuine classic taste which is always elevating, and quite a different thing (both in its inspiration and in its effects) from the false pretension to classic taste which infests so much French work of the same epoch. The most delicately beautiful Prud'hon I ever saw, as an example of his lightest manner, is a head of the Virgin in the Museum at Dijon.† It is on grey paper which is first stumped with a darker grey, and on this he made a wonderfully free and light drawing in black and white lines, not one of which seems to have cost any labour or hesitation, or to have been disturbed when once laid. Such work as that is done in the temper of what Matthew Arnold calls ‘sweetness and light’ — I mean the manner is charming and gracious, whilst it is illuminated by knowledge.

* Sir Frederick Leighton's favourite materials for studies without colour are black and white chalk on tinted paper.

† No. 182 in the Catalogue.

Draughts have very frequently been made in red chalk, or in sanguine, a mineral of another variety of red. The old masters were fond of making red drawings, a practice which fell rather into disuse in the first half of the nineteenth century, but has since been revived, like most of the old varieties of art. A page on the general philosophy of drawing in red will not be out of place here.

For convenience of illustration I will take an engraving that can be printed from in different colours, so that you can compare the proofs. Suppose, then, that you take an engraved copperplate to the printer, and tell him to prepare, besides his ordinary black ink, some red ink which shall print like red chalk, or like sanguine. Suppose your copper to be engraved with some vigorous darks, then your proof in black ink will give these darks in all their depth, but the red proofs will not be able to get down to them. The black ink, like a diver with weights in his hands, goes down to the very bottom ; the red ink, like a diver without weights, manages only the transitions between the top and the half deeps.

Now, as black may be presented in any degree of paleness (we call it grey when it is pale), it can always give with perfect precision every one of the tonic values of red (that is, the degrees of darkness there may be in red), whereas red cannot give the great weights, or dark shades of black at all, it is plain that in choosing red an artist is depriving himself of resources in chiaroscuro and gaining none in return. The same is true, but to a much smaller degree, if he chooses brown instead of black. Then why do artists ever choose red at all for drawings — why not work persistently in black ?

The original reason I take to be that red, especially when used on paper of a slightly yellow tone, and when the subject is a skinned figure, suggests the warmth and glow of carnation. Of course the old masters who drew in red never supposed that they were using colour; since they made the eyes and noses of their figures as red as the cheeks ; but, though not using colour

in the true sense, they were suggesting warmth and life. The degree to which the choice of drawing materials may suggest life or the contrary when there is no colour whatever in the sense of making and copying tints, may be fully understood by an experiment : Let the reader draw a living figure in red chalk on cream-tinted paper, and a corpse in black chalk with white lights on a very cold grey paper, he will soon see how the materials help the expression of life and death.

The old masters, as we have seen, were in the habit of tinting the grounds on which they drew in silver-point. There is a head in the Louvre* attributed to Albert Dürer on a circular piece of green-tinted paper — a fat, healthy, good tempered looking face enough, but the green paper makes it ghastly, like children's faces round a snap-dragon. There is also a highly-finished study of a torso of a young man with a cloth round his loins, a drawing of the Florentine school,† but this is on pink paper, and not death-like at all, though the figure is decapitated.‡

These elementary ideas of the suggestion of life and death influenced the figure-painters. Red chalk and sanguine have been used in landscape, but not often, and there are even engraved landscapes printed in red, but these are rare. Brown has been the favourite colour for landscape monochromes when black has been departed from, and in this choice of brown we

* Catalogue of Drawings exhibited, 504.

† Catalogue of Drawings, 419.

‡ The wonderful suggestive power of the tint of paper is shown in the following instance : Theodore Rousseau began a picture of a sunset on the sands of a region in the Fontainebleau Forest, called the Jean de Paris. Intending to paint a red sunset, he prepared his canvas with vermillion, and on that he drew his subject, I think in black. He worked a little upon the drawing, but very little, and his friends liked the unfinished picture so much that he left it in that state. After his death a heliograph was made from it by M. Amand Durand, which was printed on reddish paper in imitation of the vermillion ground of the canvas. It so completely suggests the idea of a glowing sunset that so far as the mental impression is concerned it is equivalent to a work in colour.

have another instance, not of colour, but of chromatic suggestion and analogy. Brown is not the most prevalent colour of landscape, but it is the colour which can be most easily turned into the landscape colours, as the old artists found by experience when they painted on monochromes.

It may, however, always be concluded that when an artist uses red chalk or sanguine he does not intend to produce a very powerful effect. It is as if he took silver-point or pale pencil instead of black chalk. He may get beautiful modelling and good effect within a limited range, but it is simply not possible that he should ever get the strong effects of black chalk or printing ink.

Examples of fine sanguines are so extremely frequent in every large collection of drawings by the old masters that it is unnecessary to particularise them. One of the loveliest in the British Museum is the charming study of a female face and bust by Andrea del Sarto, which was autotyped and published in Mr. Comyns Carr's selections. I do not know a more beautiful drawing; so learned it is, and yet so perfectly unpretending in style, every line tenderly touched, every shade followed to the full expression of rounded form.* As a good example of a rougher and readier kind of work, I may mention the straightforward study by Titian of a man holding a halbert.† If the reader notices that study he will observe that the lines of shading are rounded across the muscles and varied in direction, which is a technical advance on the old diagonal line, here relegated to the background.

Although considerable strength of effect may be got in red, still an artist accustomed to the full scale of black may often feel, when working in red only, like a man confined to an upper

* The reproduction in Mr. Comyns Carr's publication is a good autotype, and may be relied upon within the usual limits of autotype, which the reader will find explained later on in this volume; but he ought not even to look at the dreadfully unfortunate reproduction of the same drawing by Yves and Barret, which appeared in *L'Art* June 10th, 1877.

† Louvre. Catalogue of Drawings, 376.

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ey. On the other hand, he may like to preserve the mth of the red lines. These conflicting desires were reconciled by the union of red and black chalk in the same drawing, or sanguine and black stone, which amount to the same thing.

The use of the three chalks, white, black, and red, for the suggestion of colour, has never been carried farther than by Rubens. There are two very fine studies of his in the Louvre,* about twenty inches high, which were made use of in a picture called the 'Jardin d'Amour.' One of them represents a lady with a fan, and so dexterously are the chalks used that it requires only a little imagination to see a picture in the place of the drawing. The flesh is in red and white chalk almost exclusively, but, the eye is touched in black. In the dress this is ingeniously counterchanged; here black is used everywhere in very broad touches, with white high lights, but the ribbons are picked out in red. It is quite plain that this is not done for light and shade, as the value of the red could have been perfectly well rendered in grey; it is done with the deliberate intention of suggesting colour to the mind, though of course it is not real colour, nor even, without the help of imagination, anything approaching to it.

Many readers will remember the Academy studies in three crayons by Mulready, some of which were lithographed and published by the Government for the Schools of Art. These were very highly finished, being carried as far in delicacy of drawing and fulness of modelling as Mulready's learning and skill could go. If the reader remembers them he is sure to have noticed how wonderfully they suggest flesh, considering the simple means employed.† Mulready's paper had much to

* Nos. 556 and 557 in the Catalogue.

† I am thinking particularly of three, dated 1848, 1852, and 1853, the last a female, the others male. The large one dated 1852, of a man seated and resting on his hand, comes nearest in its treatment to the expression of flesh.

do with his success, as it supplied an element of flesh colour. He would never have been able to give his models anything like English skins on such paper as that used by Paul Veronese for the negro's head in the Louvre,* a coarse brown paper, quite as good for that purpose as any other. The drawing upon it is in black stone, with touches of sanguine, and it is a model of fine, broad, comprehensive sketching, soft on the face, ruder upon the hair.

Comparison of Chalk, Sanguine, and Black Stone with Nature.
—The dark greys and the blacks of chalk and black stone are much nearer nature than those of the lead-pencil. The essential characteristic of deep natural shade is that it reflects little or no light, and this is the quality of chalk.

Chalk lines, on slightly rough paper, resemble in quality the edges of oil-paint on rough canvas, and have altogether much more of the painter-like quality than lines with the silver-point or hard pencil, which are more like engraving. This resemblance to painting is also a resemblance to nature, for in nature the boundaries of things rarely present a hard and sharp outline. They do so occasionally, and then they can be imitated, even in chalk, with special care; though when chalk is used easily and carelessly, its line is soft, being bounded by a series of irregularities.

Red chalk and sanguine, when used on judiciously selected papers, call to mind the flesh tones of nature by suggesting their warmth.

Red chalk and sanguine, in combination with black chalk or black stone, and with white chalk, on tinted paper, may be made to play together in such a manner as to suggest full colour to the imagination when the subject is judiciously chosen. They would never suggest the colour of a blue sky or a green hill, but they can convey to us that of a gravely-dressed tree.

* Catalogue, 141.

On the whole the three chalks present one of the most powerful means known to us for obtaining a record or a suggestion of many truths of nature with great economy of labour, especially if the drawings are on rather a large scale, but they are not favourable to minute detail.

CHAPTER XV.

CHARCOAL.

THIS art of charcoal-drawing, which now occupies a very high position in the opinion of artists as an independent means of expression, is a most curious example of what may be called *promotion* amongst the graphic arts. It is not quite an isolated example, for there have already been one or two instances in which arts have been strangely neglected for a long time (even when they already perfectly existed), and afterwards been suddenly taken into favour and developed by the practice of very able men. Still, I do not call to mind a single instance quite so remarkable and surprising as the history of charcoal. The means of working in other neglected arts were in the hands of a few — only a few men had the necessary materials and were likely to be led to their employment, so that it was not very surprising if, with the narrowness which the handicrafts encourage in the human mind, these men should have gone on working in their old ways and not have developed the new possibilities of the things that lay about in their work-rooms. It is not surprising, to mention the most conspicuous instance, that silversmiths who made niellos should not have become copper-plate engravers and printers, though they were divided from such work by the thinnest of all imaginable partitions ; but it is rather surprising that hundreds and thousands of painters should have had pieces of charcoal in their colour-boxes never been tempted to make any other use of them than first slight sketch on each of their canvases — a sketch not used for its technical qualities at all, but only because it could

be so very easily effaced and annihilated as a thing worthless in itself but a convenient step to something better. The universal custom was to play with charcoal on the canvas till the forms were roughly in their places, and then to define the forms with pencil or ink through the charcoal, after which a whiff with a rag or a bundle of feathers removed the slightly adherent black dust, and the charcoal lay quietly in the box till the beginning of another picture. If a drawing on paper was required, the artist employed chalk or pencil, but never thought of charcoal. Perhaps its qualities were entirely unsuspected ; perhaps, also, it may have been thought useless to devote labour to mere dust that a touch could wipe away. It had been used in a few drawings by old masters, but in combination with chalk, and the rare instances of its employment easily escaped attention. It is believed that the real origin of the modern charcoal-drawing has no reference whatever to old work of any kind, but is simply a development of the sketch on canvas with which painters began their pictures. There was a change of material — instead of canvas they took paper, and finding that the paper was favourable to the work they carried it further, until finally they reached the full development of charcoal as an independent art.

It appears that the designers of church windows had used charcoal for some time to indicate the intended degrees of light and dark in the spaces between their ink lines, but nothing could be more remote than this kind of drawing (dependent as it was on the rigid line in another medium) from the true spirit of modern work in charcoal. The modern art is really a painter's art, and the daughter of painting. It was first practised by some French painters, of whom Decamps and Troyon are the best known beyond the limits of their own country. Since the time the number of *fusinistes* has immensely increased in France. Almost every painter has used charcoal more or less : it is constantly employed for studies in the schools of art, and landscape painters use it in their work from nature. At the present da-

(1881), the best known masters of charcoal in landscape are Allongé and Appian, who are painters; and Lalanne, the celebrated etcher. Amongst painters of the figure who have made a separate reputation by their drawings in charcoal, I do not know of one who excels Léon Lhermitte in every important quality of the art.

Charcoal-drawings may be executed on paper or canvas, or even on the clean plaster of walls, and fixed there; but of all materials paper is the most used. The quality of its grain is of great importance, as it is sure to affect very strongly the quality of the manual work, and also the particular kind of natural truth which the artist will be able to interpret. If it is too rough it catches the charcoal too strongly on its little eminences, so that the artist finds it difficult, if not impossible, to get any delicate textures, and has to shade sky and water as if they were rock. If, on the other hand, the paper is too smooth (as Bristol board, for example), the charcoal does not bite upon it properly — it seems to have no hold, — and good shading is not easy. The best papers have a grain, but rather a fine grain, and very even in its particular kind of roughness, like some fine-grained stone. Some draughtsmen in charcoal, headed by Lalanne and Lhermitte, have a liking for *papier vergé* — paper with a strongly visible wire-mark. In the process of manufacture the paper-pulp dries thinner where it meets the wire, which consequently leaves a small hollow like a furrow in earth. The charcoal passes over this furrow without getting into it, so that the furrow remains white, unless the charcoal is rubbed into it purposely. The consequence is that you have many straight white lines going across your drawing, and others going at right angles to them at measured intervals. Can this be any advantage? Allongé says no; he thinks that there is nothing in nature answering to these straight lines, which he looks upon as an intrusion and an offence, and he will not use paper in which they occur. On the other hand, Lalanne has a strong preference for this *papier vergé*. For a long time I could not discover the reason

for this preference, but was fully persuaded that there must be a reason, as there always is for technical preferences in the fine arts. At last I found it out.

All artists know that one of the worst faults in shading is opacity, they know that shade ought not to be like black marble which the eye cannot penetrate, but rather like dark waters in which the eye seems to dive, as it were, to some indeterminate depth, and in which it discovers mysterious gleams of confused light, whereby the darkness is tempered and modified. Well, the wire-mark interrupts the shade—it does so no doubt in a mechanical manner, and that is the fault of it, a fault that I cannot help considering serious, notwithstanding the practice of very eminent men — still the interruption is there, and the eye is not ungrateful for it.* Again, as the charcoal catches the ridges of the paper it seems as if the artist had drawn his subject in a great number of horizontal lines which seem less heavy than continuous shade. The reader may see the effect of this in Lhermitte's drawing of a market-place which accompanies this chapter. The charcoal was applied to the surface, simply, and wherever the pressure was not great these horizontal lines or markings are produced, the furrows being left white, but where the pressure is increased there is a tendency to fill up the furrows, as the black gets down into them; and wherever the pressure is extreme, as in the bits of deepest black, the furrows are quite filled up, which by contrast is very effective. If the reader will take the trouble to examine the penumbra in the shop he will perceive that the nature of the paper gives it a variety and transparency which would not have been attained so easily by any other means. The paper is very dexterously made use of, also, to suggest the texture of the stone, but the wire-marks are not allowed to interfere with the faces. See how entirely they are absent from the face of the young woman who is offering the apple.

* The lines of the wire-mark, though mechanical, are seldom hard, but have a sort of indeterminate natural edge which is not disagreeable to the eye.

If the reader will now turn to the drawing of the 'Rivulet,' by Allongé, he will at once see the immense difference which may be produced by so simple a matter as the choice of paper. Allongé's drawing was done upon *papier vélin*, that is, paper with an even grain and no wire-mark. After consulting Lhermitte's drawing, where the wire-marks are so conspicuous, the reader may very easily imagine for himself what would have been the effect of them on the trees, herbage, and water in the 'Rivulet.' They would have come across all those tree-trunks, except in the darkest parts, like horizontal stripes or bands, they would have shown through the herbage and in the water. The lines of the slighter trunks would have been broken by them into a series of dots. I quite think that for the class of subjects which M. Allongé deals with his prejudice against wire-marks is a great safeguard.

An artist may do as he likes with charcoal or with anything else. He may, of course, take a piece of hard charcoal and draw in pure line with it, if he prefers line, or he may draw in line first, then fix it, and add auxiliary shade with a stump, answering the same purpose as a sepia wash on a line in indelible ink ; or, again, he may begin by shading his subject and then mark organic lines upon it wherever he feels them to be necessary or useful to clear up his drawing and give it a decision and accent. All these methods are legitimate enough, but the true spirit or genius of charcoal-drawing is in the interpretation of nature by pure shade with no assistance from line, and the use of charcoal in this sense is the best discipline that it affords to painters of all kinds as well as to etchers and engravers.

The Graphic Arts contain three distinct languages. There is the language of the line, represented by various kinds of linear drawing, and by none better than silver-point or very hard lead-pencil ; there is the language of relative lightness and darkness spaces represented by all the means which are capable of shading spaces with a delicately right degree of darkness ; lastly, there is the language of colour represented by all the means

which can be relied upon for colouring spaces with precisely the right tints.

It has been found by experience that charcoal is one of the surest and most convenient means for shading spaces correctly. I do not intend to imply that the shades it gives will be more accurate than those in a water-colour or oil monochrome, but they may be equally truthful, equally delicate, and they are superior in convenience and facility of application, and also of alteration.

I have said that the shades of charcoal may be as delicate and as truthful as those of water-colour or oil monochromes. This requires just one little restriction or reserve. They are quite as delicate, and they are not less truthful in all parts of the scale except the very lowest, but charcoal cannot get quite so low down in the bass notes as some other kinds of drawing. Its most intense blacks are not so dark as those which may be easily obtained in black chalk, or in sepia.

In my opinion some restriction in the scale of light and dark is not in itself an evil. I have already argued in this sense with reference to silver-point, which gives darks very much paler than the darks of charcoal. Men sometimes talk as if some kinds of drawing had the whole scale of natural light and dark, and were perfect, whilst other kinds of drawing had less than that scale, and were imperfect. This would be a very inaccurate way of stating the case. The true statement is that we have no means at command, in any graphic art, which can be considered in any way equivalent to the prodigious scale of natural light and dark ; and it can be positively, scientifically proved that even oil painting has a scale very far inferior to the natural one, so that the difference between one graphic art and another is not that one is adequate and the other inadequate, but that *all* are inadequate, and there are only different degrees of imperfection and insufficiency. This quite takes away the sting of the reproach against the paler arts. It is one thing to fail where another succeeds, and a very different thing to fall short a little

more in a contest against superhuman powers where all results attained are nothing but degrees of failure. You might as well attempt to outrun the planetary velocities by artificial means as to contend with the dazzling splendour of nature or to rival in any visible work of art the darkness of her deepest gloom.

Charcoal, by its want of intense blackness, does not go to the lowest notes of chalk, and, therefore, to give it as large a scale as possible, it is desirable that it should be on paper either perfectly white or very nearly so. Pure white papers are cold, but this is remedied to some extent by the fixer, which stains the paper slightly with a warmer tone. Pulverisers have been invented which throw the fixer at the drawing in a jet of very fine spray, as perfumes are diffused in the air; but fixing in this way is seldom satisfactory until the operation has been performed repeatedly on the same drawing, and the pulveriser itself is a very delicate instrument, which requires to be kept in a state of perfect cleanliness, so that its little tubes and orifices may not be clogged with dissolved gum-lac. It is much pleasanter to be entirely independent of these inventions, and to fix the drawing in the old-fashioned way from behind, but when this is done the paper must be stretched on a frame in such a manner as to leave the back of the whole drawing perfectly accessible to the brush. As to the composition of the fixer, it is simply a very weak solution of gum-lac in spirits of wine, the colour of pale sherry, and perfectly fluid, so as to enter the pores of the paper very easily.

The artists' colourmen supply charcoal of very various qualities, some kinds grey and soft, others darker and harder. It would not be of much use to describe these in detail here, for the qualities may vary at different times, so that the same

me may not always indicate the same thing. A few experiments with the prepared charcoals which are to be procured in colour-shops will settle their respective merits. I have little faith in a specially prepared charcoal which does not require sing. It is quite true that this charcoal may be used for

drawing, but it has not the qualities of the natural material. I believe it is steeped in oil, but, whatever may be the preparation, it is simply a black drawing material, whereas charcoal which has not been treated so as to change its nature has most valuable qualities of its own which no artist who understands and loves it could endure to see diminished.

One of the greatest merits of charcoal is that it is so easily removed that it can be played with as the artist composes. He can introduce new forms, alter all his arrangements of light and shade, make experiments with his masses, and, in short, deal with his materials as freely as an author deals with his manuscript before it is printed. So long as the fatal operation of fixing has not been performed the drawing is in a delightfully unsettled state ; it is mere powder, scarcely adherent, and ready to take its departure at the slightest notice. It seems scarcely credible that a work of art that has the appearance of a figure or a landscape should really consist of nothing but a number of loose molecules which taken altogether are only a pinch of black dust. The truth of this was borne in upon me rather painfully upon one occasion. I had finished a large charcoal drawing on paper well stretched upon a frame, and it stood on my easel, where it gave me perhaps a little more satisfaction, or at any rate rather less torment and vexation, than works of art usually inflict upon the authors of their existence, when the catch of the easel came down rather sharply and suddenly upon the stretching frame, giving a peculiar shock to the whole drawing, and most of the charcoal fell down in a rain of dust, leaving only the pale grey ghost of a landscape behind. Every draughtsman in charcoal has a peculiar dread and horror of the zeal and activity of servants with that fearful instrument which they possess, a bundle of feathers tied to the end of a stick. One minute of light and elegant ‘dusting,’ supposed to be respectful attention to your work of art, will remove it in that limbo of things unfindable where are ‘the snows of yester-year.’

This facility of effacement has of itself a peculiar intellectual influence. The draughtsman in silver-point learns habits of decision, but the draughtsman in charcoal is led into what may be called tentative habits. He works out his ideas gradually, plays with them, alters them, feels his way towards a more perfect work than that which first presented itself to his imagination. It is maintained by some able artists that there is a great mental advantage in this mode of procedure. They say that the first idea of the work is never so beautiful as that which may be reached afterwards by a process of correction and development, that improvements frequently suggest themselves whilst the work is in progress, and that when its material conditions offer no obstacle to the immediate carrying-out of these suggestions the advantage is indisputable. I need hardly say that there are divided opinions upon this subject. Some artists maintain that it is a severe and salutary mental discipline to draw at once without facilities for alteration, and that arts which offer such facilities are so far contrary to the best discipline of the mind. I should say that the advantage or the disadvantage depends very much upon the nature of the individual mind itself, that an energetic and decided character would find such an art as pen and ink a stimulus to its own decision, whilst a dreamy and poetic nature might find in charcoal the most favourable conditions for those imaginative seekings and findings which are the favourite occupation of such natures, and their noblest distinction.

Every graphic art has its own peculiar quality, sometimes brought out with difficulty by the performer, but very visible when he *has* brought it out — I mean that when the performer is a master the very dullest of us can see what the qualities of ~~s~~ art really are, and that they belong to the art in itself, his skill being merely the means of educating them. There are, no doubt, many mental gifts, of which imagination is the brightest, which belong in a special sense to the man himself and not to the art, for if a critic says that a charcoal drawing is imaginative

he is not thinking of the particles of carbon dust on the paper but of the artist's brain with its inward eye, its mysterious image-making faculty, which expressed itself in the drawing. But, on the other hand, when the critic speaks of the purely technical qualities of shade and touch he speaks of that which is dependent on material things, on charcoal and paper, or whatever other materials may be used; and here I say that the qualities, or the potentialities if you prefer it, are inherent in the materials and are only brought out by the artist as a violinist brings out the tones of a violin. A bad performer with a good instrument is blamed for not having done justice to the instrument. We know that there was more in it than he brought out.

The qualities of charcoal are exquisite. Its pale tones may be of the most extreme refinement, delicate pure greys, half transparent, showing the light of the paper through and closely approaching the quality of natural cloud, as may be proved by the ease with which clouds are imitated, or at least suggested, in charcoal drawings. The tones become more opaque as they darken, but they have a velvety richness extremely valuable in many textures, such as dark mosses in landscape, and dark dresses in genre. The line of charcoal, when wisely used, is a luxury to the eye; it crumbles away from its stronger accents with so becoming a transience, as if it did not desire to insist rudely, but soon became less positive after every effort of assertion. Any artist who can model well in drawing can delicately and fully express every variety of roundness and projection in charcoal, on which account it is much used for studies from the naked figure, and the same reason makes it very favourable to solid, well-developed forms in landscape drawing. A great variety of textures may be got in charcoal which offers technical resources of various kinds according to the method of its application. On the same paper it may be made to adhere in such different ways that the paper itself seems roughly grained in one place and smooth in another, though nothing be done to

alter its own surface. Charcoal, in fine powder, may be applied with brushes like paint ; it can be played with and altered in its character by means of different stumps made of elder pith, of paper, leather, &c. The bare fingers are excellent instruments for certain purposes, as they give the charcoal a peculiar texture of their own. Sometimes it is left just as it was rubbed upon the paper without any stumping or blending whatever, and in this state it gives a crispness, freshness, liveliness to the drawing which no stumped work can rival in those qualities.

Lights are easily taken out with the crumb of new bread pinched and kneaded between the fingers into the form of a small pointed stump ; but it is worth noting that where the bread has passed the paper does not take charcoal afterwards so well as it did before. Bread crumb in its natural state may be used for broader spaces.

The great merit of charcoal for sketching from nature is its wonderful rapidity. It has the advantage over oil and water-colour of being a dry process, not necessitating delays for drying, which, even in the case of water-colour, are a great hindrance in the presence of nature. Besides this, charcoal has the advantage over all linear processes, such as pen-and-ink for example, of getting a shade at once, even on a broad space. In the hands of an artist who has its resources perfectly at command, the rapidity of charcoal is amazing. Many drawings by Lalanne, executed in a single sitting of two or three hours, seem to contain as much truth, and as sufficient a degree of finish, as if he had laboured upon them for days. The truth is that charcoal is perfectly accommodating as to time. There is nothing in the process to hurry you, as you are hurried with a water-colour wash that is likely to begin drying before you get it right, and there is nothing to delay you as you may be delayed by the slow drying of oil. You are not compelled, in fresco, to work on some particular portion of your design ; you can take it up anywhere and make any part of it ready for going on with in a few minutes. You can efface anything that

is unsatisfactory with a facility unknown in any other kind of drawing that is usually practised.* Your work may be a succession of alterations and experiments which will be known only to yourself. It may be the expression of a sudden inspiration, or the slowly-developed, thoughtful labour of many days. You may give it the most truthful textures if you choose, or you may express form without texture, if that severe kind of art pleases you better. Certainly not one of the graphic arts mentioned in this volume is more convenient or accommodating than this.

There is one condition, however, attached to this convenience, which is, that the drawing should never be of very small dimensions. The illustrations in this chapter, restricted as they are by the size of the page, are too small to be convenient for a draughtsman in charcoal; and we have been obliged to allow some reduction on this account, though we have serious objections to reduction in a book on the technical qualities of drawing. The smallest size in which a charcoal draughtsman finds comfortable elbow-room will measure about a foot in one of its dimensions; but as there are many other kinds of drawing which are perfectly adapted to small works, it is quite as well that this should be suited for large ones. For painters, in particular, it is better practice to draw on a large scale than on a small one, as what is usually considered a large drawing is but of moderate dimensions for a picture; and it is a technical advantage to be accustomed, in studies, to the dimensions of the work on which reputation depends. This is only one reason the more why charcoal is essentially a painter's kind of drawing. Of all dry processes it is the one which approaches most nearly to the style and spirit of painting, especially of painting in full chiaroscuro. Though used extensively by figure

* Pencil sketches on white opaque ground-glass are convenient for determining compositions, as the lines can be completely removed anywhere with a wet rag, but this kind of drawing is not so much resorted to as it might be.

painters, and, as we have seen, admirably adapted to the modelling of flesh, and the texture of hair and costume, charcoal is still more closely allied to the technical qualities of good modern landscape-painting, in which chiaroscuro is an important element of expression and emotion. The landscape-painter should make his charcoal drawings as nearly as possible on the scale of his intended pictures, for which, at a very moderate expenditure of time and labour, they may be made most useful chiaroscuro cartoons. I can hardly imagine anything more valuable to a landscape-painter than a rich collection of compositions and impressions from nature done in charcoal on a fine scale, with all the light-and-shade arrangements of complete pictures, and yet produced so rapidly that the first intention is expressed, in every case, with all the energy and freshness that our thoughts have when they first spring from the brain.

Charcoal drawing is so recent an art that there are not many examples to refer to in public collections. The best examples are to be found in the various current Black and White exhibitions, and in the reproduced works of several well-known modern artists. Charcoal drawings are reproduced by several different photographic processes, of which I shall have more to say in a special chapter on photographic reproduction. Berville, of Paris, has published a set of seventy-five plates from charcoal drawings by Lalanne, divided into three different sizes, many of which are most artistic in feeling, whilst all are good examples of the artist's great manual skill. An eminent artist, speaking of these things, said : 'I might say I liked Lalanne's charcoals, but that would not be enough ; I do more than like them, I love them.' Four of the finest are 'La Naumachie (parc de Monceau),' 'Clair de Lune dans les Pyrénées,' 'Ruines et Chêne,' and 'Le Pont.' M. Allongé, Lalanne's distinguished rival, who is more of a pure landscape-painter and less a frequenter of the haunts of men, has found his material amongst the streams and hills of the Morvan and other

picturesque districts. Many of his drawings have been reproduced by Goupil, and the collection is still increasing. Both the quality of the work, and the class of subject which Allongé generally likes best, may be understood from the example in this volume, except that his separate studies and reproductions are on a very much larger scale. The only serious reproach which has ever been directed against him is that his manner is too methodically perfect, and reduces nature to a set system of interpretation, excluding the unforeseen ; but this reproach is equally deserved by almost all artists who have spent much of their time in teaching. Mr. J. F. Hardy has published a considerable number of charcoals through the autotype process, of which I may mention three views of Arundel Castle as being particularly characteristic of his style,—a style quite, opposed to the tranquillity of Allongé's manner, and seeking rather to interpret the flickering lights and scattered darks of nature than its quiet spaces. Mr. Hardy's manner is intended especially to express or suggest the multitude and infinity of the elements which compose extensive landscapes. He defines nothing, and can hardly be said to draw anything ; yet, on the other hand, you feel that he never omits to notice anything, and though the touches are not imitative they remind you that the things are there, in the natural scene, and the drawing is not easily exhausted. The style of Decamps, on the contrary, was one of simplification ; he did not give the mystery of nature, but relieved himself of the encumbrance of details by omitting them, which figure-painters are generally tempted to do for reasons which I shall explain elsewhere.

I notice the presence of pen lines in some of Mr. Hardy's charcoals, and this leads me to another part of my subject—the possibility of combining charcoal with other materials.

It has been already mentioned that the designers of stained glass have used charcoal to fill up the spaces between the line of their drawings, which were done in ink. It occurred to me independently of this, that if an ink drawing were made so a

to represent the lines, and the lines only, in one of Turner's etchings, charcoal would then very efficiently do duty for the mezzotint. I tried this in practice, and found it both a rapid and convenient way of sketching from nature; there was no loss of time in shading with the pen, and when the charcoal was taken up it was a convenience to find all the forms ready and have nothing to do but give them their due degrees of light and dark. The only objection was that the ink line looked very hard to be associated with such a lovely texture as that of charcoal; a brush line in thick Indian ink, often dragged along the asperities of the paper, was more in harmony with the quality of the shade. The harmony is still more perfect when the lines are all drawn in black chalk, but then you have to make the drawing on a larger scale if you require very minute detail, because the chalk is necessarily rather a blunt instrument.

The comparative paleness of charcoal shades has often tempted artists to use Indian ink in combination with them. This is best done by finishing the charcoal drawing, and fixing it, after which Indian ink may be used upon it with perfect freedom. If the object is merely to reinforce the charcoal without betraying the presence of the auxiliary, the wash must be used only in well-shaded parts, and the edges of it prevented from drying sharp and hard. If these conditions are observed, the wash may be used liberally enough and quite escape detection except by an experienced eye. The only effect of it is to tint the paper with a more or less deep shade of carbon grey between the molecules of charcoal dust. It equalises the tone, which in some parts may produce a favourable result by removing crudity, whilst in others the result may be the unfavourable one of extinguishing desirable brightness. This depends entirely upon the circumstances of the case, and it is for the artist's own judgment to decide whether it will be an advantage to extinguish the microscopic spaces of white paper or not.

Charcoal and Indian ink may be used in combination, on

equal terms, without any attempt to conceal the ink, which is now no longer an auxiliary but an ally. In drawings of this class the general relations of tone and the more important details are got first in charcoal, which is fixed, and then the work is taken up with the brush and carried out in full detail, quite frankly, without hiding the sharp edges of the ink. A composite drawing of this kind is perfectly legitimate. The charcoal foundation saves much labour, because it enables the artist to get a great deal of modelling and texture into his work, much more easily and quickly than he could do if he depended for it entirely on the brush. On the other hand, the brush permits a degree of finish in small matters which is not so easy with the broader method of charcoal.

Chinese white is extremely convenient for high lights and bright touches of all kinds, when the work is only intended for reproduction and not valued in itself. In all reproductions opaque white lights are rendered harmoniously and pleasantly enough, and they are most convenient to the draughtsman. In works intended to be preserved for themselves, the use of opaque white is quite another matter ; here it is extremely dangerous, from the unpleasant greys which it so easily calls into existence. Suppose you have a charcoal drawing, well fixed, and slightly yellowed by the fixing. On this your charcoal gives rather warm grey shades. If upon any of these you have the bad luck to wash a little semi-transparent white, you will have a cold, discordant grey, very offensive in the drawing itself, though the offence (which is entirely one of tint) would be removed in a reproduction. The very utmost care should be taken in monochrome drawings of all kinds to see that they are really monochromes, and that no false note gets in. The false note may sometimes be avoided by delicately tinting the white till it exactly matches the paper, but even then it should never be allowed to go upon black or grey shades, which would lose their quality if clouded by a scumble.

Charcoal drawings are sometimes executed upon paper p

pared much in the same manner as the papers prepared by the old masters for silver-point, and then the high lights can be scraped ; but a scraped light is apt to look as if it were not related to the charcoal greys, which have such a different quality. After all, by far the most harmonious high lights in a charcoal drawing are those which are taken out with bread. They are not so minute and brilliant as opaque white lights, nor are they so sharp, but they are quite brilliant enough for a sober and sound judgment, and the very absence of extreme sharpness makes them harmonise with the *morbidezza* of charcoal.

A charcoal drawing may be treated as if it were done on a most harmoniously tinted paper, in the following manner. A sheet of white paper may be covered with one even flat tint of charcoal dust, and the drawing may be executed upon this, before it is fixed, as if it were a drawing on grey paper, and then all the lights can be taken out with bread. The method is expeditious ; but it is not really so good as a drawing on white paper, because it leaves many flat spaces, unless the grey is entirely worked over.

Crayon Conté, and also lithographic chalk, are often used for the extreme darks in charcoal, because their blacks are more intense. I do not see any real necessity for these auxiliaries, except when the work is done for photographic reproduction.

Charcoal may be used as a basis for water-colour. A drawing may be carried rather far in charcoal and then fixed, after which the artist may work upon it freely in water-colour, for which it is a safe monochrome foundation. David Cox liked to work upon charcoal. 'Try by lamplight,' he says to his son, in a letter written in 1842, 'try by lamplight a subject in charcoal, don't be afraid of darks, and work the subject throughout in charcoal in the darks, middle tint and half, and with some spirited touches in parts to give a marking. When you done all this, have your colours quite soft, and colour upon

the charcoal. Get all the depth of the charcoal, and be not afraid of the colour.'*

As charcoal can now be fixed with a jet of lac solution in spray, it can be used on canvas and afterwards tinted in oil colour. Such tinted drawings may either be left with a mere suggestion of colour or carried farther towards the full colour of oil pictures. An experiment in mural decoration by charcoal drawing on plaster, made roughly but on rather a large scale, convinced me that valuable results might be attained in that direction without any great cost of labour; but as charcoal by itself is cold, a large mural drawing in this material might be first fixed with spray and then tinted in spirit fresco, a process explained further in this volume. For picturesque landscape subjects such tinted drawings would be safer than frescoes in full colour; I mean that the artist would be less likely to fall into crudity, the great danger of mural painting in colour.

Comparison of Charcoal Drawing with Nature.—In this comparison it must be understood that pure charcoal done for tone and not for line is referred to, that being the most genuine form of the art.

Charcoal approaches very closely to the qualities of many natural objects and effects which are of great importance in the fine arts. It imitates with great success the textures and modelling of the human body, and also of the materials used in costume. In landscape it is excellent for cloudy skies, so that

* It does not, however, seem to be clear that Cox fixed his charcoal before he painted upon it, for if he had done so he would scarcely have needed to clean the drawing afterwards with bread; and he talks of the colour not adhering, likely enough to happen if the charcoal were still powder. 'When you look at it by daylight,' he says, 'and clean it with bread, you will find a number of light parts, which have been left white; the colour would not exactly adhere over the charcoal.' On the other hand, unfixed charcoal must surely have dirtied the colour, except where it was overpowered in the darks.

by skilful hands their quality of softness in contour and their delicacy in light and shade can be imitated with wonderful truth. In a good charcoal sky the lights are never hard nor the shades heavy ; we see in and about the clouds which melt into each other or stand in bolder relief, exactly as they do in nature.. There is a lightness, an immateriality, in the paler shades of charcoal which may be imitated, no doubt, in some other materials, but at a far greater cost of labour, and it is this lightness which makes charcoal so useful for cloud studies. In its imitation of clear sky charcoal easily gives the feeling of permeability and remoteness. A man must be very unskilful with it who made the sky like an opaque dome against which a bird might knock its head and kill itself ; but, on the other hand, it may be objected that charcoal does not so readily as water-colour give the notion of clear atmosphere — it is always somewhat smoky at the best. Yes, we have to admit this, the one technical defect of the art. A cloudy or smoky sky is better within the means of charcoal than a clear one.

All textures of earth and vegetation can be imitated with striking truth in charcoal. Rocks, earth, grass, the foliage and the trunks of trees, all these things are well within its means. It imitates the qualities of water surfaces admirably, blending so easily the reflections in calm water, and affording so many facilities for rendering the changing forms of waves, not in mere flat silhouettes, but in full mass and volume. But the grand quality of charcoal with reference to nature is the extreme ease with which it renders effects of light and dark. Simply to hold a piece of charcoal in the hand and to be in the presence of nature is in itself almost an education in chiaroscuro, so strongly is the artist tempted to the study of shade.

Nature is generally somewhat hard upon her votaries, and exacts from them much labour and long patience before she vouches them any substantial satisfaction, but she is very unequal in the bestowal of that reward, and is certainly kinder to the workers in charcoal than to many others. Their art is, of all

the graphic arts, the one that soonest repays labour; of all the graphic arts it is the one which soonest permits the aspirant to express his knowledge of natural truth without offending a fastidious taste by technical shortcomings or inconsistencies.

CHAPTER XVI.

WATER MONOCHROME.

INSTEAD of treating Indian ink, sepia, &c., in separate chapters, I class them together in one, as water monochromes. They are, in fact, exactly the same art, the mere difference of tint in the monochrome being of no consequence whatever when both the manipulation and the mental labour are the same. Indian ink and charcoal are of the same colour, and are chemically identical, since the black in each is carbon * (the difference being in the manner of its application); but the use of them requires two entirely different states of mind, for the mind cannot be in the same state when it plays deliberately with a dry material and works hurriedly with a wet one. But Indian ink and sepia are used by a mind in the same state for both, and therefore the practice of them is the same art. So with all other water monochromes, except that if a colour were used which could not get down to low degrees of dark the chiaroscuro of the drawing would of necessity be limited. A drawing in yellow ochre could never realise anything approaching to full chiaroscuro, and consequently, if the mind of the artist were by nature disposed to express itself in full chiaroscuro, he would

* With charcoal the molecules of carbon are put upon the paper in a state, and are at first very slightly adherent, but they are bound ther afterwards with gum-lac applied in solution as a fixer. With ian ink the molecules of carbon are joined from the first with their π , which is a solution of glue or size. The difference seems a small , but in the fine arts very small differences in the employment of erials lead to very great intellectual divergencies.

have to work in a state of self-denial with yellow ochre, in unpleasant contrast with the ample satisfaction he would have with sepia. This would be all the difference ; in other respects the mental state would be the same in both cases, and, as a matter of fact, it seldom happens that artists use pale colours for monochromes, because they can make the dark ones themselves pale by the addition of water.

When a dark pigment is used for water monochrome the resources of the art are exactly the same as those of full water-colour painting, except that there is no colour in the sense of tint and hue. The relative暗 of colours may be rendered quite as well as in water-colour itself. You may show the difference in weight of colour between a white horse and a black one as well as a painter could, but you would find it impossible in monochrome to make people understand that one horse in a pair was a bay and the other a chestnut.

As water monochrome and full water-colour are the same arts, except that one is chromatic and the other not — as the same paper, brushes, medium, and handling are used for both, it is the common practice to begin to learn water-colour by passing through a preliminary stage of water monochrome. There is a difference here between water-colour and oil. It is not at all a common practice to approach oil colour through oil monochrome, and the reason probably is that, unless great precautions are taken, oil monochrome is very offensive to the eye, whereas monochrome is perfectly agreeable when it has water for a medium. I will explain the reasons for this in another chapter. For the present it is enough to say that any colour which is used transparently with water (opaque white being excluded) will run up the scale from bass to treble without any loss of its own nature. However pale, however dark, sepia sepia still ; from its strongest black to its lightest grey Indian ink is still itself ; so that monochromes done with these pigments are sure to be chromatically harmonious, as every monochrome ought to be.

Although sepia is brown and Indian ink is black, the brown pigment is the deeper of the two, for Indian ink does not dry really black, but only a deep shade of grey which looks black until something darker is put by the side of it. Indian ink is, however, quite dark enough for all practical purposes of chiaroscuro. It is much darker than the blacks of charcoal, and charcoal offers ample resources, if only a little care is taken to make its darks look darker by opposition.

The qualities of Indian ink * have never been described with so much affection and so much talent as by Töpffer, the admirable Swiss humourist. Töpffer began life with the intention of being a painter; he was the son of a painter, loved nature with all his heart, and had the feeling and insight which belong to the artistic temperament. Unhappily, just as he was beginning to work, an unfortunate infirmity of sight compelled him to renounce art as a profession. He had to earn his bread as a schoolmaster, but, like all artists who have been thrown by necessity into other callings, he still clung to Art, if only by the hem of her garment. Of all material objects, the thing that he loved best in the world was a stick of Indian ink. Though a man of the simplest tastes, he envied the Emperor of Russia, not for his pomp or his power, not for his rank and position amongst men, but because from time to time the Czar receives from his brother on the throne of China the most perfect ink that is made in the whole world,—‘l'encre de Chine la plus pure, la plus belle, enveloppée dans des étuis de laque, doublés de satin.’

Töpffer kindly cautions us, if we do not happen to be intimate with the Emperor of Russia, so as to beg a cake of Indian ink from him, at least to take care that we follow good advice in I chasing one, lest we discover, later, that we have set our I actions on an unworthy object.

Why this substance should be called Indian I do not know, as the I of it comes from China. We also call Chinese paper India paper. I French, more correctly, they are called *encre de Chine* and *papier de I e.*

If the reader expects good advice from me he will be disappointed. The quality of Indian ink may be guessed at by breaking it, but dealers object to this test. If the fracture is bright there is a probability that the ink is good ; if the fracture is dull the ink is probably bad. A great deal of the Indian ink sold in Europe, without being very bad, is mediocre, and as different from the best as tolerable poetry is from the true inspiration of the Muse. The only real test of Indian ink is actual use, and it is by mere chance that one hits upon that which is truly and unquestionably excellent. I have possessed two good sticks. One of them was discovered in its hiding-place by a too appreciative friend, who borrowed it, used it for some time, neglected to put it by, and lost it ; the other was probably stolen from my bag when travelling, or unfortunately mislaid. I mourn for both of them to this day, and have never been able to replace them. I have several more recent purchases, very pretty to look at, but inferior in quality. The good ink did not clog the pen, was not overcharged with glue, and gave a black line, with washes of various pure greys ; the inferior ink rubs more softly and thickly, it does not give a pure black, and its greys are brownish.* Still, I have no reason to believe that this inferior ink would be condemned as bad in China, it is only mediocre ; neither am I quite certain that the ideally perfect ink sent to the Czar has exactly the qualities of that which I regret.

It is easy to make a poor imitation of Indian ink in Europe ; and it is probable that many such imitations are passed off in trade with imitations of Chinese moulds and cases, but that which comes from China itself is of different qualities. Those

* Field believes, or says it is believed, that sepia is mixed with Ind ink. If this is so the brown tint is accounted for, and it may possibly be considered a beauty by some makers, and purposely sought by them. This is a matter of taste, but I prefer the cool pure greys of what seems to me the best Indian ink, to the muddy tones of that which lies between black and brown.

by which good ink may be known are defined as follows by Mérimée : —

'When broken its fracture is black and shiny.'

'The substance is fine in texture, and perfectly homogeneous.'

'When you rub it with water you do not feel the slightest grit, and if you mix it with a great deal of water there will be no sediment.'

'In drying, its surface takes upon itself a skin which has a metallic appearance.'

'It flows easily from the pen, even at a low temperature, and when it has dried on the paper a brush charged with water passes over it without disturbing it. This property is very remarkable, for the same ink, dried upon marble or ivory, gives way as soon as it is wetted, which proves that an indelible combination is formed by the ink and the paper impregnated with alum.'

Mérimée tells us that if lamp-black of fine quality is mixed with the purest gelatine the result will be ink of a good tint, but it will not shine in the fracture, nor will it be indelible on paper like good Chinese ink ; yet this property may be given to it by mixing astringent vegetable juices with the gelatine.*

Some importance is attached to the sharpness of the impression which the cake of ink receives from the mould. A sharp and clear impression is the result of fineness of material as well as a clearly cut mould ; but Mérimée says that the presence of camphor, in the proportion of two per cent, has been detected in the best Chinese ink, so he mixed some camphor in that which he prepared himself, and attributed the perfection of the moulding to the presence of camphor. The best ink I ever used had extremely sharp and delicate mouldings, but I have observed them also on second-rate ink, so that they do not afford a sure criterion. On the other hand, some Indian ink of

But so as not to form a precipitate. Mérimée explains how this be done, but I have not space for chemical details in this volume, & so many things have to be treated.

third-rate quality in my possession has dull markings. Gilding on the cake, and the luxury of ornamental cases to keep it in, as if it were very precious, please children, and awaken distrust in mature Europeans, but they signify nothing either way. Good ink may be gilded, as Töpffer's was, and nothing is easier than to gild bad ink also. Again, I am not sure that the marks on the cakes, such as the dragon on the side, or the little lion on the top, are at all to be relied upon as the marks of trustworthy makers. Töpffer says that good Chinese ink gives forth when rubbed a delicate odour of musk, but that the bad imitation inks are much more strongly scented. It would hardly be safe to go by this, as an imitator might scent his ink delicately, just as he might gild it in moderation.

If the reader concludes from all this that we know very little about the subject he will be right. We hit upon ink of excellent quality by chance, and then we ought to keep it with a due sense of its preciousness. Fortunately it lasts a very long time. A wonderful number of drawings might be made with one piece. Töpffer says that his cake, which had belonged to his father, had served him also, in regular use, for twenty years, and was only shortened by a quarter of an inch.

In comparing the qualities of Indian ink and sepia, Töpffer's strong affection for his twenty years' friend and companion led him to say rather harsh things of the product of the cuttle-fish. He says that it is of a comparatively coarse grain, that it sustains a shade badly, and that its shades are not so minutely divisible as those of Indian ink. This depends on the preparation of sepia, and is not applicable to the best recent preparations, especially the best liquid sepia. The qualities of Indian ink are, however, so good in themselves as to need no heightening by comparison. The molecules of carbon which it contains are divisible in water that they tint a large quantity of water equal. The most delicate distinctions of shade may be given with Indian ink, and, what is more, a delicate or a deep shade may be maintained with the most perfect purity and equality over a large

surface of paper. The quality of becoming indelible in combination with paper is a very great convenience to the workman, as his first lines, or washes, need not be disturbed afterwards.

Notwithstanding these merits Indian ink is less used by artists than sepia, probably because the greys of ink are felt to be rather cold, and also because its blacks are not the most intense. Another reason of a practical nature, trifling in appearance yet not without its weight, is that sepia is to be had in tubes, and in a convenient liquid form, which avoids a considerable loss of time in rubbing. Lamp-black or ivory-black, in tube, may be preferred to Indian ink for the same reason. But whatever may be the changes of habit amongst artists, Indian ink, of good quality, must always be esteemed as one of the most successful inventions amongst the materials of art. Human ingenuity has seldom attained its object so completely as the Chinese inventors attained theirs when they tried to present the black smoke of lamps in such a form that it might be cleanly and portable, and convenient both for writing, for linear drawing, and for the most delicate shading. It is one of the very few things in which absolute perfection has been attained. It lasts for ever.

Many feeble drawings have been executed in Indian ink which may have created some degree of prejudice against it, just as some people have a contempt for lead-pencil because it is the instrument of beginners. We ought to keep well on our guard against prejudices of this kind and judge things strictly on their own merits. Feeble persons often write verse, but a powerful mind may also express itself in verse ; feeble people often speak English, yet it is the language of great orators. There is no reason why artists of the most consummate science should not use Indian ink.

Bistre was much employed by the old masters. Field tells us that 'it is a brown pigment extracted by watery solution from soot of wood-fires, whence it retains a strong pyroligneous tint.' Scotch bistre is got by collecting the deposits of the t-smoke behind the fires in cottages, which is afterwards

purified by solution and evaporation. I, myself, have prepared a fine bistre by boiling the shavings of bog oak. The peat bogs of Scotland are, I suppose, coloured with bistre, and the brown rivers and lakes hold bistre in solution, so that nature tints with it on an extensive scale. In art it is pleasant to use, and quite permanent, but not so powerful as sepia. It gives a cool brown, passing almost exactly through the tints that oak assumes with age.* There can be no possible objection to its use in water-colour monochrome, but it has been much disused in modern times on account of the modern preference for sepia.

Sepia, as the reader probably knows already — for this is one of the curiosities of artistic materials,—is produced by the cuttle fish, which has an ink-bag. The ink dries and solidifies. In commerce the raw material is in the solid state, and afterwards prepared for use in various ways. There are different qualities and tints of sepia, especially two, of which one is rather cool in hue and the other warmer and more golden. I have found it an agreeable practice to do all the substantial work of the monochrome in cake sepia, and afterwards glaze with liquid sepia of a more golden colour.†

Although sepia is a brown and not a black it is remarkable for the intense depth of its darks, which get down to a note lower than many shades of colourless grey which are commonly called black. This, of course, is a great convenience as it gives the artist a fine range or gamut. By using tube sepia he can put very intense darks in their full strength wherever he requires

* In staining new oak to imitate old, the cool brown of bistre comes very much nearer the truth than the hot brown of burnt umber, besides which bistre is a real stain, and umber an earth. Some workmen go so far as to put red in their stains for oak, which should be carefully avoided.

† The unlearned reader may need to be told that in the technical language of painting, the word 'glaze' has nothing whatever to do with lustre of surface; it merely means the addition of transparent colour to picture or drawing which alters the hue of the more opaque pigments under it. The allusion in the word is to the transparency of glass, not to its lustre.

them. I have not found, in practice, that Töpffer's objection to sepia as being irregular in tint and not easily divisible into a minute scale of shades, was tenable. With sepia, as it is prepared in the present day, I do not perceive that there is any greater technical difficulty in washes and shades than there is with Indian ink.

The list of pigments available for water monochromes is not confined to Indian ink, bistre, and sepia, but these are the best. Other blacks may be used, such as ivory black, blue black, &c., and other browns, such as the umbers ; but the custom of artists has preferred the three materials we have described, and from the agreeable quality of their tints and the perfection of their working they are likely to keep their place, so that it does not seem necessary to speak in detail about any others.

A water monochrome presents all the technical difficulties of a full water-colour, except the purely chromatic difficulties and a certain impediment arising from the difference of fineness in the substance of the pigments. As for the use of the brush it is exactly the same in both cases, and so are the scientific matters relating to light and shade and texture. He who can make thoroughly good water monochromes is, therefore, very far on his way to being a good painter in water-colours ; he has nothing left to learn but colour, the rest of his knowledge, and his manual skill also, being continually of use in the complete art.

It is admitted, as a rule, amongst artists that the first processes a student works in should be dry processes, such as pencil, chalk, or charcoal, and that only after knowledge has been gained in these ought he to attempt any wet process, the reason being because wet processes have their own difficulties, which may well be spared to a beginner. But, on the other hand, when knowledge has once been acquired in a dry process the experience of many artists seems to prove that this same knowledge can very soon be expressed in any monochrome wet process. Harding says, 'The mechanical difficulties of the brush are speedily overcome — so very speedily, that I have invariably

found persons who were capable of using the chalk or pencil well, use the brush with equal facility and power after a very few trials.'

The first difficulty in water monochrome is the necessity for speed. It is not always necessary to work rapidly, but it is so under certain circumstances, in certain parts of the work. Small details may be painted slowly if you like, broad washes over considerable spaces *must* be applied with rapidity and decision, because if they were done slowly they would dry at the limits of the work done, of the band of pigment applied, and the artist could not extend it without leaving a watermark showing where he had first paused. A large gradated space of sky must always be done quickly; any hesitation would throw its gradations wrong.

This necessity for speed in water-colour is often considered to be a fatal objection by oil-painters, who, being accustomed to a delightful liberty of deliberation in their own art, think that compulsory rapidity is not only a hardship to the executant, but contrary to the very nature of art itself. A little reflection, however, will soon convince us that compulsory speed is perfectly compatible with artistic sentiment. Oratory and music are both arts of sentiment, and yet speed is a necessity in them. An orator is never allowed to compose his sentences with the deliberation which is possible to a writer, and if he wants to produce certain effects of vehemence and energy his words must follow fast, like balls from a Gatling gun. In music, sentiment itself depends upon the exact observation of rapidity — every passage must be played with the rapidity fixed for it by the composer, the very meaning of a *presto* would be missed if you played it as an *andante*. I am, therefore, far from believing that the compulsory speed of water-colour is an artistic disadvantage. I even believe that the power of working rapidly, which every water-colour painter *must* acquire for technical reasons, is of the greatest value to him for artistic reasons also, and that a certain dash and vehemence of utterance may often do more to ex-

the power of natural forces and the passion of the human mind than all the patience ever lavished on canvas by the laborious artists of Holland.

In passing from line to brush-work the student has to abandon the mental habits which are connected with the line and to acquire the habit of seeing nature in spaces. If water monochrome is intended as a means of transition to water-colour the mental revolution cannot be too complete. The artist ought to see nature simply as a large space divided into many smaller spaces of different degrees of darkness, and if he gives to these smaller spaces their due proportionate size, and their proper relative tone and texture, his work will be fully accomplished, even though he may never have thought about linear beauty from the first touch to the last. In short, a water monochrome should have the qualities of a good charcoal drawing in full tone, except, of course, that the peculiar nature of bistre or sepia is substituted for the powdery and crumbling nature of charcoal.

The old masters used water monochrome most frequently in the shape of auxiliary washes in combination with pen or pencil lines, but there do exist complete brush drawings by the old masters in brown or black, which, though not equal to good modern work in manipulation, are interesting in the history of art. There is a fine sketch in the *Liber Veritatis* of Claude,* which represents a river winding through a picturesque country, with hills in the distance, and one or two towns or villages at the foot of the hills. The country through which the river flows is dark, and richly, though not densely, wooded ; the river is bright with the reflection of the sky, but the general character of the scene is solemn rather than brilliant. What I mention it specially here for is that Claude, who was so much accustomed to pen and wash together, has in this instance relied exclusively the brush, which he uses boldly, blotting his sylvan masses, dark fields, and his distant hills, just as broadly as would modern water-colour painter.

* In the British Museum; No. 217 in Braun's autotypes.

The reader may find occasionally some drawing by an old master in which the brush only has been used, without any dependence upon line. Such drawings are boldly and broadly begun, but seldom carried far, and may have been intended for subsequent finish with the pen, in clear and decided line. The true water monochrome, in full tone without line, is found in its perfection in modern work, and is really the daughter of modern water-colour, though by a sort of atavism in art genealogy it seems more like its grandmother, the old monochrome, from which modern water-colour sprang. The difference is that the eighteenth-century monochrome, sustained by lines, was tinted in the wash and had little texture, whilst the true modern monochrome has a richness and boldness which it derives from the example of contemporary painting in full colour. The example given in this volume, a sepia drawing by Harding, shows the influence of modern colour-art in the relief given to objects, in the texture and in the local colour. A little line is admitted, more than in the Claude just mentioned, and certainly more than is quite compatible with the strict principle of pure mass, but the line is not obtrusively dark, and is entirely done with the brush, so that it does not show very much. I need hardly comment upon the visible skill with which the artist, at a minimum cost of labour, has given to his objects a vivid appearance of truth. The boat is detached by light along the gunwale from the shaded part of the hill, and by dark against the sky, the boy's dark trousers are made use of as a contrast to the light stone, and the dark stone as a *repoussoir* to the distant castle.

I have seldom met with more completely successful examples of modern water monochrome than two drawings in Indian ink by Mr. T. L. Rowbotham, reproduced in autotype. One entitled 'At Rochester,' and dated 1874, represents a picturesque rustic scene with ruinous cottages and a boat at the water-edge, all the picturesque material most skilfully treated in pure brush-work with lights reserved, the quiet broad grey tones of water, sky, and distance being in contrast with the brilliancy

broken lights and darks of the foreground detail. When a certain advanced degree of manual skill is attained, artists amuse themselves, and please us, by expressing much with little labour. I have seldom seen a better instance of this than a jar near the fishing-basket in this drawing. The whole jar with its neck and body, its points of high light and its shade, is expressed with a brush twice charged, and probably in one minute. The other drawing, 'Near Guildford, Surrey,' also dated 1874, is a winter scene with a cottage and a windmill and snow on the ground. The beauty of this is not in brilliant sharp contrasts of black and white detail, but in the truth of unpretending greys only relieved by a little vigour of black on foreground trees. It is the kind of subject which exactly suits the delicacy of Indian ink.

It is unnecessary to go farther into the technical examination of water monochrome, because the qualities of it in wash and texture are the same as those of full water-colour, and will be treated in the chapter on that process.

Comparison of Water Monochrome with Nature.—Truth of tone may be got in water monochrome as nearly as the difference in the scale of light and dark between nature and artistic materials will permit.

The transparency of sepia, bistre, and Indian ink, is a most valuable quality for the interpretation of many things in nature, and gives them a decided superiority (so far) over charcoal; but transparency is not always desirable, and a painter in oil, when reduced to water monochrome, may often desire a little body and opacity. This is given to some extent by the white paper in the lights, and the monochrome becomes itself quite sufficiently opaque in the extreme darks; it is the middle tints, especially the paler middle tints, that are sometimes more transparent than they are in nature, from which a certain flimsiness of appearance may result.

There is a tendency in all water-painting, whether in mono-

chrome or full colour, to a certain hardness, meagreness, and sharpness, which we do not commonly find in nature, and which is very happily avoided by charcoal. Good painters in water-colour, being aware of this, take measures to prevent it. There is also a natural tendency to flatness in water-painting (a flat wash being more easily managed than a piece of modelling) which has to be overcome.

On the whole a good water monochrome may be truly said to come very near to nature within certain limits. It avoids the falsity of lines, it can translate local colour into light and dark with almost perfect accuracy, and it can imitate texture very well, though not so well as oil painting. It is not so good as chalk or charcoal for the study of the naked figure, because deliberate modelling is not so easy by its means ; but it is good for landscape sketching in which a number of distinct and delicate shades are of more importance than laboured modelling.

CHAPTER XVII.

OIL MONOCHROME.

A CERTAIN number of oil monochromes have come down to us from the old masters, but the greater part of them were probably preparations for colour. Many artists have painted in colour upon monochromes : a kind of oil painting which we shall have to examine more fully when we arrive at colour work in oil.

Oil monochromes may be divided into two distinct classes, the transparent and the opaque.

The greater number of existing monochromes are transparent, and generally in brown. The admirable browns which we have just spoken of as valuable for water monochrome can be mixed with oil, but they are, unluckily, bad driers, and so have to be rejected. It is a pity we cannot use bistre and sepia in oil, but so it is, and on leaving water-colour we bid adieu to them. It is a pity, too, that asphaltum is not fit for use in transparent oil monochromes, for it is a delightful golden brown, and very pleasant to work in. Many artists have been unable to resist the temptation which it offers, but it allures them to destruction — not precisely to their own death; but to the ruin of their work.*

Vandyke brown is better avoided, because it dries very slowly,

By cracking and running. Asphaltum cracks in wide fissures when it is used beneath other pigments and tears them asunder. When it is employed as a surface glaze only it never really dries, but for years afterwards it slowly runs down the picture, forming drops, like the condensation of damp in the air on a cold wall.

and has a dull chilled surface when dry. Cappagh brown is fine in hue and dries well, but if used thickly anywhere it shrivels. The best browns for practical use in oil monochrome are the two umbers. Raw umber is a delicate citrine-brown earth of the most agreeable tone but of moderate power, and it may be used alone where great force is not particularly required. Burnt umber is very powerful, but hot, and it has entirely lost the delicate beauty of the natural earth. It may be used with great advantage in monochromes which are intended to be vigorous rather than pleasing.

The difficulty in painting transparent oil monochromes is that if oil is really used the work does not hold well in pale tones, but runs or flows upon the canvas, so that it is impossible to preserve that appearance of a decided and firm touch which is one of the best qualities of water monochrome; indeed, it is not too much to say that any skilled master of water monochrome would consider oil a very inferior medium, and with good reason; I mean if it were really oil, and if the monochrome were transparent.

The word 'oil' has, however, in the technical language of painting, a very comprehensive signification. It is supposed to include all varnishes and mediums with which colours ground in oil can be easily mixed. The umbers, ground in oil, may be used in monochrome with varnish, and this is the right way to employ them when transparent work is intended. Even with varnish, or with the thickest jellies known as 'meglips,' oil monochromes are still inferior to water drawings in freshness and decision. They are also inferior in speed, for if you wait until a coat of transparent painting is dry enough to work upon again there is some delay, and if you do not wait the second painting cannot retain sharp edges, but will melt into the first. The only compensation for these inferiorities is the super strength of oil, such a colour as burnt umber, in varnish, being powerful to a degree which cannot be rivalled by sepia or Indian ink. I have had occasion several times already to warn t

reader against attaching too much importance to mere strength of dark material in art, since so much beauty and truth can be got out of weaker materials. The comparative weakness of charcoal and Indian ink is not, let me repeat, a serious defect from the artistic point of view, neither is the strength of burnt umber in varnish a force to be too ardently desired, or purchased at a very high price.

Although there are examples of transparent oil or varnish monochrome which show great delicacy, and convey a great deal of truth, this kind of monochrome, at the best, is inferior to sepia skilfully used with water. The dead surface of water painting on paper is in itself a substantial advantage, and besides this the surface of the paper itself, in its combination with the pigment, may be made an important aid to texture. I once painted a series of transparent oil monochromes on paper not otherwise prepared than by a good sizing, the first sketch being made with pen and ink. The result was not unsatisfactory, except that the sketch, which was in lines, would have better harmonised with the shading if it had been done with the brush, and with water-colour burnt umber from a tube, rather heavily loaded in some parts and dragged so as to give a broken line in others. The pen line is too hard and mechanical to be painted upon unless it is wholly concealed. In some slight and light transparent monochromes a careful pencil line may be seen beneath the raw umber glaze; there is much less harm in this than in hard pen-work.

Many transparent oil monochromes are touched upon more or less extensively with opaque colour in the lights, the shades being left transparent. There is nothing to be said against this, provided that the tone of the opaque colour is made to harmonise well with the transparent pigment, so that the work may be truly a monochrome. Much caution is required for this, care must be taken not to mix white with the raw umber or whatever else is used for the transparent monochrome, for so long as this is done there is a certainty of producing a new set

of tones, which are sure to look discordant. We cannot insist too strongly on the doctrine that a monochrome, though it professes to have nothing to do with colour, is in fact just as much subject to the laws of chromatic harmony as a coloured picture ; that there are solecisms in tints as there are in words ; and that offences of this kind in monochromes are sure to be felt by persons of naturally refined taste, even though they may not be able to explain exactly in what the offence consists.

I have no doubt that it is a reason of this kind which has made oil monochromes so much less popular than water drawings in sepia, and so much less frequently produced. If the reader reflects a little he can hardly fail to be struck with the curious fact that, although painters in oil are very numerous, oil monochromes (or what are called *grisailles*) are not by any means largely produced ; whilst in the past, when artists made drawings washed in water-brown by thousands, they seldom painted monochromes, except with the intention of hiding them beneath scumblings and glazings of full and various colour. This is the more curious and remarkable that we so frequently hear people complaining, and so often complain ourselves, with perfect justice, of the offensive crudity of much that is called 'colour,' and which is no more colour, in any true sense, than the noise of the streets is music. It would seem, then, that as our oil-painters seldom colour well enough to satisfy either their critics or themselves, those amongst them who have no natural gift for colour would do well to abandon the pursuit of it, and paint courageously in *grisaille*, just as writers who find they are not poets take contentedly to plain prose. Unfortunately for this proposal, the painters know that even bad colour is more saleable than oil monochrome. Why is this ? The public does not object to black and white in other arts, such engraving, etching, charcoal, and sepia drawing. Why does object to oil monochromes ?

Transparent monochromes are not objectionable for their tint, but they are thin, they have not the solidity of oil-painting ; t

lights and half-lights, instead of being substantial, are thinner than the shades, and the darkest shades are the thickest in pigment. This kind of painting can never be quite satisfactory for these reasons, but it has the additional defect of poor texture. No painter can ever get great variety of texture in transparent colour alone.

Opaque monochromes, glazed with transparent brown, and scumbled with semi-transparent brown just as if they were complete pictures, have not these deficiencies. They have all the technical merits of oil-painting except colour. Strong, substantial relief, vigorous and truthful texture, effective manual expression with the brush, belong to opaque monochrome, as they do to complete oil-painting ; whilst in range of light and dark, and in all technical facilities of alteration and correction, the two arts are precisely alike. The one objection — there is but one — to opaque oil monochrome is that its scale of colour, for it *has* colour, is not a true chromatic sequence.

To understand this thoroughly, the reader should make experiments with some colour and white, both ground in oil. I will take vermillion, as an extreme instance. Let us try to make a scale, of which vermillion shall be the lowest bass and white the highest treble. To get the intermediate notes you mix white with your vermillion, but pray observe the disastrous consequences ! The mixture does not give you lighter vermillion, as it ought to do for a true chromatic scale ; it gives you *something* lighter, but the thing is no longer vermillion — the note may be true in light and shade, but it is false in colour. And now observe that the falsity, once admitted, does not even remain in the same proportion, but constantly alters its proportions. Vermilion with a little white and vermillion with much

e are not merely different in light and dark, they are different chromatically — they seem as if they belonged to different es of colour. Every landscape-painter knows that in paint-fiery sunsets the great difficulty is to avoid falsifying the ur of the flame, whilst trying to imitate its light.

I know that vermillion is an extreme instance, because it is a colour which alters remarkably in chromatic quality when it is mixed with white. Yellows do not alter so much. A bright yellow is still a bright yellow, only paler, when white is added to it, but the danger is in the transformations of those colours which might possibly be used for monochrome. Vandyke brown and burnt umber produce a series of false and unpleasant notes with white. The white seems to reveal in them, as marriage does in bad-tempered persons, possibilities of disagreeableness which were unsuspected when they were alone. Vandyke brown and white look like a mixture of chalk, mud, and the lees of wine; they have no apparent relation to the 'fine, deep, semi-transparent brown colour,' which bears the name of the illustrious artist who loved it. Burnt umber, so rich in its pure state, is so dirty with white that the mixture spoils the colour of every picture where it is admitted. The greys produced by ivory black and white are less disagreeable, but they are not neutral, nor are they a consistent continuation of the pigment itself in lighter shades. They are not *lighter black*, but something else. The greys of black lead, ground in oil, and mixed with white, are much nearer in quality to the black lead itself, and much pleasanter, being less ghastly, but plumbago is not dark enough for the lowest notes.

The most available pigment for opaque oil monochromes is raw umber. It is not very disagreeable in mixture with white, and the discordance between the tints in mixture is not very striking. Nevertheless an opaque monochrome, painted simply in raw umber and white, can never charm the eye, however good in drawing, and light and shade. At the best it looks crude and cold. To remedy this it may be treated by glazing and scumbling like a picture in complete colour, but with a very limited palette composed of raw umber, raw sienna, burnt umber, and white. I have found in practice (having painted a good many oil monochromes) that a treatment of this kind, when the painting approached its finish, was an effectual rem-

against the rawness and opacity of the simple umber and white. Raw sienna was necessary chiefly in scumbles in the lights where it corrected the coldness of raw umber, and burnt umber was used transparently in the darks. Notwithstanding the chromatic differences between these pigments they harmonised fairly well, so as to be apparently a true monochrome. I am convinced that if opaque oil monochrome is to be produced in a satisfactory manner at all it must be by some compromise of this kind.

It is to be regretted that complete oil monochrome, like that just described, with solid under-colour and rich glazing, scumbling, and retouching, should not be more practised by young oil-painters, as it would afford for them the same convenient technical introduction to the difficulties of painting that sepia does for painters in water-colour.

Complete oil monochrome would be easier for amateurs than sepia and Indian ink, as it affords plenty of time for deliberation. It has also the advantage that it can be practised on any scale; whereas charcoal is not convenient on a very small scale, nor water-colour on a very large one.

For reasons which will be given at length elsewhere, oil monochrome is not so good as sepia with water for purposes of photographic reproduction. This is to be regretted; but I have no doubt of the fact, having ascertained it by many very careful experiments on rather a large scale. All that can be said in favour of oil monochrome is that it is much better for photographic purposes than coloured painting in the same medium, and that a copy in oil monochrome from an oil picture may come nearer to its texture than a copy in any other material.

There is a kind of oil monochrome quite distinct from picture-painting, and that is decorative camaïeu.* In this, the colours employed are generally brighter and prettier in themselves than

* According to Littré, camaïeu is derived from the base-Latin word *ahotus*; *camahutus*, from the base-Latin *camaeus*, onyx.

the dull earths of picturesque monochrome. They may also be selected with an eye to successful mixture with white. In a decorative panel, a figure with the landscape behind it may be painted all in rose colour or all in blue, like painting on a porcelain vase or a tile. In these camaïeus the choice of hue is perfectly free, except that it must bear reference to the decorative surroundings, so that you may paint a blue lady or a pink tree if you like, provided that the blue lady has a blue background and the pink tree a pink figure in its own panel. Notwithstanding this liberty, however, there are certain considerations which make it wiser to choose one colour than another.

Camaïeus seem to be an ingenious means for getting over a certain difficulty. A definite colour may be wanted for decorative reasons, and yet at the same time you may wish for a form of some interest and significance. The difficulty of reconciling the two is got over by a simple postulate : 'Let it be granted that I may paint a world all in rose colour ;' to which our readily accommodating imagination at once replies, 'By all means, paint away ; let it be rose colour, or mauve, or magenta, or whatever you please.' So the artist sets to work with liberty to draw as delicately and beautifully as he can, but he is to use only one colour, which may be as unnatural as he likes. It is generally understood that the *drawing* in camaïeus should be very careful and elegant, and idealised so as to be in harmony with the conventional colour.

Comparison of Oil Monochrome with Nature.—Transparent oil monochrome is not strong in the representation of direct light on objects, nor does it often give their modelling powerfully, nor their texture. It gives delicate shadows truly.

Opaque oil monochrome, in combination with glazing & scumbling, like complete oil-painting in everything but colour, is capable of the closest imitation of nature except in hue. It permits the most complete modelling, the most perfect rend-

ing of light and shade, the most accurate translation of local colour into light and dark, that are possible in the graphic arts. It allows also the most powerful imitation, or suggestion, of natural textures, and every variety of surface, whilst it gives the full scale of transition by every intermediate degree from the densest opacity to the most lucid transparency. With these powers, the whole of nature, whether picturesque or severe, is open to the workman in this art, if only he can renounce colour, and yet it is less practised in working from nature than most of the arts which are mentioned in this volume. The reason for this has already been stated. It is the chromatic solecisms which occur in opaque oil monochrome from the mixture of the dark pigments with white, and which can only be overcome by carefully avoiding the pigments that ally themselves badly with white, and by having recourse to certain artifices by which crudity and discrepancy may be avoided or concealed.

CHAPTER XVIII.

PASTEL.

SOME qualities in the Graphic Arts are pleasing or displeasing in themselves, independently of their fidelity to nature. Hardness is unpopular in itself, softness is popular; the first answers to dogmatism and decision in conversation, which nobody quite likes, though it may be the affirmation of pure truth; the second answers to flattering acquiescence, or to affirmation of the very gentlest and mildest kind, which is incomparably more pleasing to all of us.

On this principle pastel ought to be the most popular of all the forms of drawing, for it is like velvet to the eye. It is, indeed, always sure to please when executed with ability, but it is not very much followed, in comparison with water-colour, because it cannot be preserved without great care, and has a reputation for being more fugitive than it really is. Safe only under glass, and at some distance from the glass, safe even there only on condition that the room is free from damp, a pastel drawing is not a very convenient thing to keep. It is nothing but dry, coloured powder on paper with a soft surface. Of all the graphic arts it has the most delicate constitution —

‘Ainsi de la beauté
Le pastel a l'éclat et la fragilité.’

The charm and effeminate softness which distinguish many pastels have also produced an impression, a very erroneous yet a very natural impression, that the art is

capable of manly and vigorous delineation. Pastel is more durable than people think, and it is, or may be, a more firm and masculine art than a careless world imagines. There is no reason why a pastel, preserved under glass in a rich man's warmed and ventilated room, should not last for many generations. The poet just quoted has said prettily that pastel has the *éclat* and the fragility of beauty; he was thinking, no doubt, that as beauty may be at any time disfigured by accident or disease, so the pastel powder may be displaced by the touch of a feather, and the graceful form, the brilliant colour, effaced and obliterated for ever. Still it is true, however sad, that this delicate powder will far outlast the bloom of that natural beauty which it represents. Where are the pretty marchionesses who sat to Latour? *Où sont les neiges d'antan?*

The principle of pastel is that the colours, when on the paper, are in a state of dry powder, most of which is slightly adherent. In painting of different kinds the powder is held together by some medium. Pastel is therefore exactly the same thing as painting, minus the medium.

In all kinds of painting, even in water-colour, the necessity for waiting until the paint has dried is a cause of delay. The dry processes of charcoal and pastel economise the time lost in these delays; they are consequently more rapid than any of the wet processes. My attention was first drawn to pastel in a practical way, when, on looking through the portfolio of a well-known landscape-painter, I found a collection of landscape effects, of the kind which in nature last five minutes, or less; and he told me that he had been able to get the relations of colour either directly from nature itself or in the most fresh and immediate recollection. Unimpeded the necessity for waiting till pigments dried, he could, by help of pastel, finish a work in colour in one short sitting. Eugène Delacroix used pastel frequently for rapid notes of colour, and he had a peculiar gift for setting down chromatic

relations rapidly. It can hardly be necessary to observe that no amount of facility offered by the materials will enable anybody but a colourist to get these relations even in the slightest sketch. Still, when the colour faculty is there, it is an immense convenience to have a process which goes on without interruption.

Pastel answers in colour to soft chalk or charcoal in monochrome, just as water-colour answers to sepia, and oil-colour to *grisaille*. The proper technical preparation for pastel is, consequently, a training in chalk or charcoal. The transition from that to colour involves only the chromatic difficulty, there is no new manual difficulty to be overcome.

The colours used are in the form of cylinders, about two inches long and three-eighths of an inch in diameter. They are divided into two classes — soft and hard ; and sometimes into three — soft, hard, and intermediary — kept in separate boxes.

The preparation of pastels is extremely artificial, and differs with the colours employed. Pipeclay and chalk are mixed with the colouring substances, and the molecules are held together by a little mucilage, which is varied according to circumstances. In soft pastels they cohere just sufficiently to be laid on the paper as broad shades, in hard pastels they cohere so as to be applicable in lines. Many of the colours used in water and oil have to be rejected from the list of pastels, but this is not of the slightest consequence practically, as complete colour can be got without them.

Pastels are not usually prepared, like oil and water colour, in pure pigments, but in tints — so that a box is like a palette set carefully and elaborately with fifty or sixty hues ready hand. The object of this is to save the artist a good deal of mixing, which is not so convenient in pastel as in painting. I may, however, be permitted to observe that ready-made tints, however numerous, scarcely ever supply the exact o-

that the artist happens to require ; so that mixing is to some extent inevitable, and in pastel it seems awkward to manage, when one has been accustomed to the practical readiness of oil.

The papers used are various, but it appears to be understood by artists that their surface should never be too hard and smooth, but should have a sufficiently free fibre to catch and hold the powder. When the paper does not supply this of itself, care is taken to prepare it by wetting and brushing, which in some degree detaches the fibre. The same thing is done to hard papers for plate-printing.

Pastels may be done on paper of any tint that the artist prefers, but cool greys seem to be the most satisfactory. White papers are bright, but they do not sustain the tones, which are apt to look thin and unsound unless very carefully laid. It must be remembered that pastel does not answer to transparent painting, like washed water-colour, but to opaque painting, like body-colour, so that there is no real necessity for brightness in the paper, as it can be given by the pastels themselves.

To make the paper catch and retain pastel more easily, to give it more of what is called 'tooth,' it is often prepared with a surface of adherent pumice-powder, or fine sand, or saw-dust, to which the pastel clings. Canvas is used sometimes, and upon this the artist first lays a coat of parchment-size, on which he blows fine marble and pumice-powder, which remains fixed after the size is dry, and is then rubbed over with pumice-stone to make it even. A certain roughness still remains to catch the pastel.

When a variety of texture is not required, the pastel tints may be rubbed into the paper either with a stump or with the finger,* and if the paper has been well selected it will retain pastel so well that the drawings may be kept in a portfolio

The palm of the hand is used for large spaces, when the drawing is of considerable scale.

without being fixed, and without any special protection.* It is easy, however, to give them some protection by sunk mounts.

Rubbed tints of this kind are often used as the general beginning or ground-work of a pastel, and on these the work is continued and finished in decided touches for accent and texture, which of course are left quite undisturbed, as they are the life and soul of the performance.

When pastel has been first applied to the paper, and is not yet rubbed in, it may be removed with a badger-hair brush, used lightly as a duster, the drawing being inclined forward, so that the dust may not fall on the parts of the work which are to be preserved.

Rules for order in working are not of much use in any art, as no artist ever pays attention to them for any length of time together, but it may often be a convenience to begin by rubbing in the middle tint, then add the darks, and finally put on the lights. If any student wishes to be methodical he can scarcely choose a more rational method than this, for it is founded upon the simplest and most orderly analysis, and is applicable to everything. In by far the greater number of subjects which are interpreted in full colour, middle tint largely predominates—high lights and low darks being as exceptional as bright intelligence and extreme dulness in mankind.

Pastel is often used with something else for a basis. Latour and his contemporaries are said to have prepared their pastels with sanguine and black chalk,†—the sanguine for the warm shadows, and the chalk for those parts of the flesh in which a

* I have pastel studies of skies which have been kept quite carelessly for twenty years, and do not seem the worse for friction; at any rate they still answer their purpose, but they are mere *frottes* for broad relations tint. If done by a good colourist, such things would be very valuable to a landscape-painter.

† In Goupil's treatise on Pastel, page 42. I owe some other bits of information to this little work.

bluish tint is perceptible. I need hardly observe that both were used with much lightness and delicacy. My authority says that no blue will replace the cool tone given by a ground-work of black.

When we come to painting we shall see that many artists of eminence have painted upon monochromes for the convenience of finding drawing and light and shade ready to hand. Precisely the same thing has been done in pastel. We shall find, as we proceed further in our comparison of the graphic arts, that the same principles and methods are constantly recurring in new applications. Colour upon monochrome is managed in pastel by first making a charcoal drawing and fixing it, the pastel being then worked upon that. The general temper of charcoal and pastel is so very nearly the same that the union of them in one work is not unnatural. The greys of charcoal are of a quality so nearly neutral that they need not harm the colour by showing through. The charcoal should be done on white paper, as its own greys darken the paper sufficiently to sustain the pastel.

It is rather to be regretted that there is not yet in our National Gallery a room given entirely to pastel. In a perfect gallery all the graphic arts which have been practised by eminent men ought to be represented, but oil-painting has over-powered the other arts, which do not receive a fair share of consideration. Pastel is quite an artist's art—I mean that it is an art which offers perfect facility for artistic expression—for the expression of an artist's knowledge and sentiment. The plain truth is that it is simply *dry painting*. We may be asked why such an art should be encouraged at all when oil-painting can express everything in a safer form. The answer is, that some artists may find pastel more suitable to their genius, and that all sound varieties of art ought to be encouraged, because variety is a refreshment to all of us. There is a small but admirable collection of pastels in the Louvre, enough to serve as examples. Two of the best are the por-

traits of Chardin and his wife, done by him at the age of seventy-six, and full of vivacity. One of them has been engraved in mezzotint for this book,* and as mezzotint may be made to imitate a good deal of the quality of pastel, the engraving is very like the original, but it lacks, of course, the life-giving carnations and the advantage of the natural scale. Poor Chardin, who had lived to be eighty, and laboured to the last,† was so completely forgotten twenty years after his death that this pastel was sold in 1810 for less than one pound sterling. In 1839 he had risen in the market, as this portrait and another of himself nearly reached six pounds, taken together.‡ Chardin had startling vigour, even in pastel, which he took up late in life, but he had not the charm and finish of Latour, nor his marvellous technical accomplishment. In Latour you have the master of the special pastel craft, and a wonderful craft it was, in his hands, admirably adapted to his subjects, to whom it lent a lightness and elegance which were the idealisation of their own. The courtly graces of the eighteenth century—so remote from us now that they seem thirty generations back instead of three—the splendours of an aristocracy nearly at the end of its power, but still retaining a style quite pure from democratic manners, found in this art of Latour a record of itself so delicate that it seems as if the very air of the court were preserved in the tinted dust of his pastels.

All things considered, I suppose that the portrait of Madame de Pompadour, by Latour, now in the Louvre, is the most complete manifestation of the art of pastel which exists; but I am inclined to think that the best use of pastel is not in wonderful, highly-finished performances, but in excellent sketches and studies. Several other arts are in this position. The pen-drawings, and even the etchings, which seem to ex-

* See the chapter on Mezzotint Engraving.

† He died in December, 1779, having exhibited in the Salon of the same year.

‡ The exact prices were 24fr. and 142fr.

press best the genius of their arts, are not laborious, highly-finished performances, but the animated and often rapid records of intelligent observation. There is a sketch in the Louvre by Prud'hon, a portrait of 'Mademoiselle Mayer,' on coarse paper, which shows plainly what great sketching power may work through pastel. The power of colouring rapidly like that, in a dry process, would certainly be of the greatest use to painters, and when the sketches had served the purpose of the artists they would be greatly valued by intelligent collectors. The speed of the process might place good work in colour within easy reach of collectors of moderate fortune.*

Of all processes in colour, pastel seems to be the most accessible to amateurs. It allows of endless correction, it does not hurry the artist like water-colour, and it may be continued or interrupted at any time, which cannot be said of oil. Besides this, the colours of pastel are pleasanter in themselves than oil and water-colour, and do not require so much mastery to make them agreeable. When full colour is not attempted, a drawing may be pleasantly tinted in pastel or the colour of an intended painting may be indicated by touches of pastel on a cartoon. There is an instance of this in the Louvre—a cartoon portrait by Leonardo in black stone and sanguine with indications of colour in pastel, not powerful, but enough to go by.

Comparison of Pastel with Nature.—The strongest advocates of pastel lay stress on the dulness of its surface, which is a great advantage in the representation of nature, as a pastel can be seen like a fresco from any point, and your mind is called back to the material by a glistening of paint or varnish. This is quite true, but it is only true of pastels un-protected by glass, for glass is far worse than any varnish, as

* The portrait of 'Mademoiselle Mayer' was bought by the Louvre less than 6*l.*, and another fine pastel study by Prud'hon for 2*l.*

it reflects objects far better. The pictures behind plate-glass in the National Gallery cannot be completely seen from any point of view whatever; what we see is a confusion between the painting and the reflected costumes of the visitors.

A surprising degree of vivid imitation can be attained in pastel, which in skilful hands rivals painting in this power, but its best employment is in securing accurate notes of colour relations in spaces. The natural *morbidezza* of pastel, and its fine aërial quality, make it admirably adapted for studies of skies. The ease with which its tints are melted into each other makes it extremely available for studies of water. Flesh may be rendered in pastel with the most life-like truth of colour, but there is a risk of chalkiness which can only be avoided by intentional vigour of tone.

On the whole it may be truly said that pastel is better and safer for rather large spaces of colour than for minute detail, which is not in the natural genius of the art, though it may be attainable with labour. Pastel is a colourist's art, and its most precious work is the recording of lovely colour-combinations in a sort of vague visible music without too much insistence on what is positive, material, and tangible.

CHAPTER XIX.

TEMPERA.

A GREAT practical hindrance to the general knowledge of tempera is, that paintings so executed are often varnished, and then they look like paintings in oil, and commonly pass for such. They are recognised by experts on account of a certain sharpness, which an oil-painter might attain if he tried for it, but which, as a matter of fact, is rare in oil and invariably found in tempera.

Instead of saying over again in other words what Sir Charles Eastlake said in explanation of the word 'tempera,' I prefer to make a quotation from his *Materials for a History of Oil Painting*.

'Before entering on this subject,* it may be necessary to explain the different meanings of the word *tempera*, applied to more or less liquid compositions. First, it is used in the general sense of mixture, in accordance with the import of the classic expression "temperare" (thus Pliny, "temperare unguentum"). In this widest application the Italian substantive "*tempera*" means any more or less fluid medium with which pigments may be mixed, including even oil.† Hence

English and German *tempera*.

Buttura, in his Italian dictionary, defines *tempera* as *ogni liquore, o olla, o chiara d'uovo, con che i pittori liquefanno i colori*; he only mentions the white of egg, but tells us that any diluent comes within the meaning of the word. It is, however, restricted by usage to egg or size painting; and especially, as Sir Charles Eastlake says above, to painting in which the yolk of egg is employed.

Vasari says, "l'olio che è la tempera loro." Secondly, in a less general sense, the term represents a glutinous, as distinguished from an unctuous or oily, medium ; and thus comprehends egg, size, and gums ; or, in a more general expression, binding substances originally soluble in water. Lastly, in its most restricted and proper acceptation, it means a vehicle in which yolk of egg is a chief ingredient ; the varieties being, yolk of egg mixed in equal quantities with the colour ; yolk and white of egg beaten together, and diluted with the milky juice expressed from the shoots of the fig-tree ; and the yolk alone so diluted. These last-named vehicles were the most commonly used by the painters of the South of Europe, before the invention and improvement of oil-painting. They are described by the chief Italian writers on art, and by those who have followed them. Sandrart intimates that tempera was still employed in his time, but observes that it was only fit for dry situations.'

The word tempera is also sometimes used for size-painting, in which there is no egg, but simply some kind of thin glue. Coarse work of this kind is done in large quantities for theatrical purposes, and for the cheap decoration of houses and churches ; but it is not worth our while to go into the examination of size-painting minutely here as the principles of it are exactly the same as those of egg tempera applied to common purposes.

Northern artists had to do without the fig-tree juice, which they might replace with vinegar. Eastlake believed that the German and English artists added honey to their tempera vehicle to retard its drying, just as honey is mixed with our modern moist water-colours by the colourmakers. A manuscript of the fifteenth century in the library at Strasbor quoted by Eastlake, contains a clear description of preparation of parchment size, mixed with vinegar, for si painting ; and the writer adds, that when it is used it shou be mixed with water, 'and likewise much honey with the

Warm the composition a little, and immix the honey thoroughly with the size.' The MS. then goes on to explain how paintings so executed may afterwards be varnished for their preservation.

Water is not, strictly speaking, the medium of tempera painting, but it is the diluent of the medium, and consequently tempera may be not unfairly regarded as a sort of water-colour painting, for even in ordinary water-colour it often happens that water is not employed alone. In the first place, the powder colours are not formed into cakes or pigments with water only, for gums are added; and, in the case of moist water-colours, honey is also added, as we have just seen. Besides this, some water-colour painters use a wax medium, made so as to be soluble in water. Tempera is, in fact, body-colour with an egg medium and a watery diluent.

It is not necessary, with regard to the purpose of this volume, to enter into any minute inquiries into the nature of the colours employed by the old tempera painters, as this book does not profess to be a history of art, but only offers such details as may be of practical use now and in the future. We may take it for granted, on account of the affinity of the processes, that all pigments which are good for use in water must be available for tempera, if only we bear in mind that tempera is an opaque process. The colours should be procured in powder and mixed with egg by the artist himself on a slab of ground glass with a muller.

Notwithstanding this general availability of pigments, it must be remembered that there is colouring matter in yolk of egg which affects all colours as a yellow varnish in oil-painting affects them, consequently yellows will be deepened, reds reddened a little in the direction of orange, and blues greened. The influence of yolk of egg on warm colours is not very intense, but it is serious on cold ones. Borghini, as quoted by Mrs. Merrifield, recommends the mixture of blue with a gum of gum or parchment size to avoid greening.

Tempera is durable when it has been managed prudently and kept in favourable situations, but it is very much exposed to cracking and peeling when too much egg or size has been employed. William Dyce, in his evidence before the Select Committee of the Fine Arts (1841), expressed the belief that the cause of peeling was some action of heat and moisture, or that the size might have been too strong.

Since the general use of oil-painting, tempera has ceased to be used for pictures, but it may still be of occasional use for decorative purposes, though even for these it is generally superseded by other processes. It has therefore very little importance as a living art, and would scarcely deserve notice now if it were not for its historical rank. The reader may find many excellent examples of early tempera painting, varnished, in our own National Gallery. They are generally brilliant in colour and very clear and precise in form; indeed, the quaint charm of these works is due in a great measure to ignorance of visual effect which led the artists to combine bright colouring with hard, though delicate, linear drawing in the same works, consequently they have a union of attractions which, if optical effect were studied, would be incompatible. Those artists gave, in fact, more delineation and purer colours together than could be combined in an advanced state of art. The absence of aerial perspective, which we excuse in *them*, but which we do not excuse in our own contemporaries, enabled them to make their work more decorative, and so all the more in accordance with the natural sharpness of the process.

There are two admirable portraits by Piero della Francesca in the National Gallery — one of Isotta da Rimini, the other of some unknown lady — in which the artist reached the perfection of the primitive method. They have a clearness definition like that of severe old engraving, and we have that of Isotta engraved for this volume in the old manner. The painter had attained the utmost manual skill in the use of the brush; he evidently delighted, as Giotto did, in

deftness with which he used its point in drawing hair, for example, in its curves and thin individual hairs ; not a learned nor an artistic manner of representing it, but one admirably adapted to display the talent of a craftsman. So the rich dress, with its abundant jewellery, offered an excellent opportunity for the sharp, clear touching of detail congenial to the process and to the taste of the fifteenth century. The profile of the unknown lady is very beautiful, and followed out in all its delicacy with all the care of a lover of the line. The colour of the dress has evidently gone, except in the dark green floral ornament which shows now very strongly upon it.

The same principle of sharp delineation is found in the tempera of the northern schools. In the very animated portrait by Albert Dürer, in the Louvre, of an old man with a parchment-coloured face and a red cap, the grey eyebrows are painted literally hair by hair. The grey beard under the throat is more massed only because less finished ; it is not really worked out in massing as Velasquez would have done it. There are two portraits, by Mabuse, one of an ecclesiastic in black with hands joined in prayer, and a lively intelligent face, the other of Jehan Carondelet, both remarkable for that excessive clearness which is the tendency of tempera. In the Carondelet the hairs are so many fine lines with the point of the smallest brush, and the whole conception of the painting is linear.

Tempera has often been used for large cartoons, such as those which bear the name of Raphael at South Kensington and those of Giulio Romano in the Louvre. As the subject of this book is not the imaginative but the technical side of art, it is not our present business to enter into an examination of the cartoons as inventions of the painters' minds. Such a study would require a long chapter to itself ; but it may be observed here that the imposing mental powers of Raphael, and especially the majesty of some of his figures, have led many people to overrate the technical merits of the

cartoons. In the first place, we ought not to forget that they were not done for themselves, but only to serve as guides for tapestry weavers, who cut them into long strips for their own convenience ; and, again, although Raphael composed them, they were in great part executed by his pupils, especially by Francesco Penni. Subsequent repaintings and restorations have not improved them ; but, whatever may be their history, the fact that there is a great deal of crude painting and bad colour in them is undeniable. If technical merits were alone to be considered I should greatly prefer the cartoons of Giulio Romano, Penni's brother pupil. It seems to me that such a work as the 'Triumph' in the Louvre* is the perfection of a tempera cartoon. It is highly decorative, and there is no attempt in it to go beyond the natural limits of tempera. The colour, I need hardly say, is not to be compared in any way with that of a fully-modelled and well-blended piece of oil-painting by Titian or Correggio. It has no such pretension ; it is nothing but a decorative arrangement of nearly flat colours on a large scale. Take, for example, the distribution of red, in the line of bright red fringe under the chariot, the red traces and bridles of the horses, the red buskins and mantle of the soldier on horseback to the extreme right ; the distribution of blues, in the blue distance, the king's breeches, and the background of the bas-relief on the chariot ; the distribution of yellows, in the throne, the harness, the helmet, and many other things. All these colours are flat, or nearly so, and they are distributed for decoration, not for chromatic melody. The drawing is everywhere clearly defined, to which tempera invites an artist by a natural clearness and hardness of outline. The chariot in the 'Triumph' is full of sharp decorative drawing. The colouring has very little pretension to truth, it is often very positively untrue, especially in coarsely painted carnations, but it is not inharmonious, considering the general scheme.

* No. 263 in the collection.

Comparison of Tempera with Nature.—The natural tendency of tempera is towards flatness, and therefore against free modelling, and so far against natural truth, or, rather (to state the case more accurately), it comes short of the complete truth. Flatness is scarcely to be considered a falsehood in art, though natural objects rarely appear flat; it is rather a condition of imperfect development, just as delicate tinting, in colour, is not properly to be called false or bad colour, but only incomplete colour.

Sir Charles Eastlake examined the reasons for this flatness. He said that with the egg-vehicle, undiluted, it was 'difficult to effect a union of tints in the more delicately modelled parts of a work—for instance, in the flesh—without covering the surface with lines in the manner of a drawing.' Nevertheless, the Rhenish tempera painters gave modelling in their work, and it has been believed that they had some means of retarding the drying of the colours so that they could blend them, as colours in oil are blended.

Tempera is naturally favourable to sharp and clear definition, so that most tempera paintings appear hard in their outlines, a condition not unfavourable to the conventionalism of decorative work, but often contrary to the appearances of nature, in which boundary lines are often very difficult to determine.

Tempera has the very great advantage of a dull surface, so that large cartoons painted in it may be seen from any part of the room where they are hung; but we have seen in the case of pastel that this advantage may be completely neutralised by protecting the works with glass. The Raphael cartoons are now a striking instance of this, for nobody can see them properly.* Again, the advantage of a dull surface is entirely lost when the tempera picture is varnished, as so many works in tempera have been, for their preservation.

* I am not arguing for the removal of the glass, as it may be quite right to plague ourselves patriotically that works of importance may be kept for posterity, but one cannot help feeling the sacrifice.

All things considered, it does not appear that tempera is likely to hold a high place in the future amongst the varieties of painting. It is more likely to be employed for common purposes than noble ones. The few artists who make cartoons before beginning pictures may find tempera convenient, though they generally only draw the cartoon, and make a separate sketch of the colour arrangement, on a small scale, in oil or water. For decorative wall paintings the artists of the future will probably (and with reason) prefer some process such as that called 'spirit fresco,' which is likely to resist damp better. The interest of tempera is therefore chiefly historical. It once held a very important position in the fine arts, so that the mere mention of the word recalls to us many names which were great in the early days of art, and which deserve still to be reverently remembered.

CHAPTER XX.

FRESCO AND ITS SUBSTITUTES.

FRESCO is simply the art of painting on fresh plaster, which dries with the colours and fixes them. The pigments are either pure water-colours, used transparently, or else colours mixed with water and lime, used in an opaque manner. In pure fresco they are not mixed with any kind of gum, as in what we commonly call water-colour, nor with any kind of glue, size, albumen, or yolk of egg, as in ordinary distemper, or true tempera painting. Many kinds of mural painting are inaccurately called fresco, either from simple carelessness in the use of language or else from analogy—the analogy having generally reference rather to the appearance of the result attained than to the process of execution. The reader will please to understand that in this volume the names of processes are used in their strict sense, so that whenever fresco is mentioned here true fresco is intended, and not tempera nor gum-painting.

Before entering into the details of the fresco or fresh process, it may be well to pause and consider what are the reasons which have made mural painting a distinct branch of the graphic arts. If you took a picture at random from the lls of a modern exhibition, and glued the canvas to a wall a panel of plaster exactly the right size for it, the picture could no more become what we call mural painting than a man would become a statesman by simply getting into Parliament. Mural painting, as all competent persons understand

it, is a special kind of art, the distinctive characteristic of which is that it perfectly harmonises with architecture.

Here we come upon one of the many questions relating to the fine arts which are extremely difficult to settle in a positive and dogmatic manner, but which it is impossible to ignore. I do not pretend to give any set rule by which the reader may easily determine for himself what kind of mural painting is in harmony with architecture, but I wish to direct his attention to compatibilities which are sometimes found, and which give the permanent satisfaction derived from seeing congruous things together. Certain kinds of painting join with architecture in producing one effect upon the mind ; other kinds of painting either interfere with architecture, or else are so completely outside of it that we cannot imagine any connexion between them. By far the greater part of our portable painting — our oil-pictures and water-colours in frames — must be considered as having no reference to architecture whatever. Such painting, if worth hanging at all, at once predominates over the building which contains it : the building may be very rich and appropriate to the sheltered treasures, but it is a mere casket, whilst the pictures are the jewels. If the internal architectural features of the building are too powerful and decided the paintings will suffer, but the edifice will not be enriched. Suppose that the Queen's collection of Dutch pictures were hung in the chapter-house at York, what would be the consequences ? First, of course, a shock of unsuitableness, because the building had been erected for religious purposes, but beyond that a sense of permanent conflict between the container and the contained. The building would overwhelm the pictures, the pictures would spoil the building. To enjoy any one of them you would have to forget the 'house of houses,' and think only of what lay within a little gilded frame. You could never receive an impression from the paintings and the architecture together. It may seem idle to mention an incompatibility so obvious

for (however little judgment there may be in the world) it would be hard to find anybody foolish enough to decorate a Gothic building with Dutch pictures ; but why should they be so incongruous ? It is not the difference of nationality, for English pictures of familiar life and landscape would look equally bad ; neither is it the Gothic character of the building, for they would equally fail to adorn any truly noble and imposing classic interior. The real reasons are the following.

In the first place, architecture of all kinds is an excessively artificial product of human taste and intelligence ; it makes some use of natural objects, but only after it has strictly conventionalised them, whereas the kind of painting I have supposed, the painting of familiar scenes and incidents, has a far closer affinity to nature. There is too much of nature in such painting for it to harmonise with any kind of architecture, and this leads us to the first comprehensive law about all mural painting, which is *that it must not admit any really imitative naturalism.*

The next objection to Dutch pictures in the chapter-house at York Minster is that the painting in them is so minute and so elaborately finished that it cannot be properly seen at the distance which is suitable for the architecture, so that the two cannot produce any combined effect upon the mind. From this we may infer that *mural painting should be sufficiently large in scale and simple in execution for the parts of a subject to be seen at the same distance as the principal details of architecture.*

Again, the Dutch pictures would all be varnished, and shine in certain situations. The windows of the chapter-house let light in from many points of the compass, so that there would be reflections on the surface of the canvases, enough to prevent them from being seen except from chosen places. If the pictures were considered of chief importance, many of the windows would have to be masked, which would be destruction to the architecture. The beauty of architec-

ture is not to be sacrificed to painting ; if the two are to work harmoniously together, we want to find some rule by which they may be happily reconciled, without injury to either. Evidently then, one condition for this must be a dead surface in all the painting. *There must be no gloss on the painting anywhere.*

We now come to another consideration. A wall, in architecture, is intended to be felt as a wall, and not as a hole ; consequently, whatever may be the subject of the painting it must be as much as possible on one plane. Landscapes with far-stretching distances could only harmonise with architecture on the supposition that they were a kind of window ; as real mural decoration they would always be bad. *Figures afford better material ; they can be placed in groups supposed to be near the spectator.*

We have now arrived at four principal conclusions about mural painting, which may be recapitulated as follows :—It must not be like nature in any imitative sense, but sufficiently conventionalised to harmonise with architecture ; it must be large in scale and simple in execution ; it must have a dead surface ; figures are the best subjects for mural painting, and they should be arranged on the same plane, or nearly so.

Fresco was popular in Italy for architectural painting because it had a dead surface, because it invited or required a simple and broad method of work, and because it was rapid and cheap. It was supposed to be very durable, and in some situations fresco, which happened to be put on quite well-prepared walls, has proved to be so.

Before going into technical details I may offer a few remarks on the value and importance of mural painting generally, whether by fresco or its substitutes, supposing, for the present, that they are all convenient to the artist, and durable. We shall see in due time that these conditions are seldom fulfilled, but we take it for granted, just now, that they are so.

It has often been argued that mural painting is superior as a means of popular instruction to any other form of graphic art, because it is so imposing in size as to command attention ; because it remains in the same place, which is generally a public place ; and because it may be so closely associated with architecture as to share the long existence of great buildings. Unluckily, however, for the popular influence of mural painting, it so happens that all its peculiar qualities — all those qualities which distinguish it from portable painting — are so many causes of unpopularity.

It is not, or it ought not to be, an imitative semblance of nature, whereas most persons who have not seriously studied the fine arts are attracted and repelled exactly in proportion to the amount of imitation they can recognise in a work of art. Downright imitation of things that they can understand and touch seems to them so amusing and delightful that they cannot imagine why any artist should ever refuse it or stop short of it. Here, then, in the necessary conventionalism of good mural painting, is a clear cause of unpopularity.

Secondly, in well-ordered mural painting the figures are either on one plane or on two planes. They very seldom recede from the spectator into distances, and there is, consequently, something in the arrangement of them which is not easy or natural. The uneducated spectator cannot explain the reason for this, but you may be quite sure that he feels it.

One very essential quality in mural painting is deadness of surface. Artists like it, but it is not at all a popular quality. What people really like and enjoy is the shine of newly-applied varnish. Again, the darks of fresco are not so forcible as the darks of oil, yet there is nothing in art that uneducated people like better than forcible darks, especially under a thick coat of varnish.

The reader must not suppose that these are simple assertions without authority ; they are the results of carefully observing the manifestations of popular preferences. When

MacLise was making his elaborate experiments in water-glass before he undertook his large water-glass paintings at Westminster, he soon found out that (to use his own words) 'the dry, unshining surface which the painter seeks with such painstaking, both in fresco and stereochromy, is a source of distaste to the general public.'* So we find that the people call paintings weak when they have not rich darks, and that they enthusiastically admire what they call the fine chiaroscuro of well-blackened pictures and etchings, even when the blackening is a violation of all the laws of nature and of art. For these and other reasons there is little hope that good mural painting, such as that which goes well with architecture, can ever be really popular, and if it is not popular how is it to instruct and influence the people? It may, however, be very acceptable to cultivated persons, and many things are done in a great nation simply because it is right that they should be done, when there is very little chance of extensive benefits resulting from them.

About the year 1840 the public authorities in England, and many of the artists, were in a state of mind most favourable to the revival of mural painting amongst us. The authorities had never before, in the history of this country, been so willing to help graphic art of a public and imposing description, the artists had never been so willing to learn a kind of art that was entirely new to them. No one who carefully studies the history of that great effort towards mural painting which was connected with the new Houses of Parliament can fail to be struck with the admirable temper which animated all concerned in it. It would have been impossible to set to work

* 'So general,' says MacLise, 'is the taste for the glossy surface, that such quality alone will secure admiration and gain for a picture the preference of fine colour, while the contemplation of works embrowned by repeated varnishings has, in a certain degree, vitiated public taste.'

'I notice that one of my early experiments in stereochromy, which shines under too lavish a layer of water-glass, is always selected for preference to another painted in the same hues but of flattered surfa-

in a temper more likely to ensure ultimate success, and though the actual results have been a mixture of deplorable failures and doubtful half-successes, the energy, the patience, and the care with which information was gathered and inquiry conducted, and practical experiments carried through, have left their mark — their honourable mark — on the history of the graphic arts in England. The Government of that day, entirely free from any foolish assumption of knowledge, took the greatest pains to enlighten itself by carefully investigating the whole subject of mural painting ; the artists of that day, eminent and successful in their own peculiar paths, had the noble humility to go, as it were, to school again and learn the conditions of an art which was wholly unfamiliar to them. The Government was ready to pay handsomely for the work done, and yet this considerable payment was not a compensation to the artists for the suspension of their private practice. On all sides, in the history of those transactions, we find a disposition to incur cost and trouble in order that the country might be enriched with one of the highest forms of art.

Pure fresco was first attempted ; and then, on the failure of that — a failure due to some subtle technical defect of preparation — or to the air of London, or to both together, it was decided to abandon fresco for what was looked upon as a safer process. Then, in its turn, this safer process was looked upon as doubtful, though less obviously perilous than fresco, and the whole grand scheme of mural decoration for the Houses of Parliament fell through lamentably, with rotten frescoes that had to be repainted anyhow, large water-glass pictures not now expected to be very durable, and great vacant panels awaiting in vain the artist who never comes. Some of the frescoes have had to be placed under glass, which entirely destroys that deadness of surface on which their harmony in architecture depends, and the water-glass paintings are concealed with a like concealment, being saved from it, for the present, chiefly by the accident of their size.

True fresco is now abandoned in England, but mural painting, having many of the qualities of fresco, is winning gradually a hold upon the tastes and feelings of cultivated people which would probably lead to a very extended practice of such art if we could only be sure of its durability. It unfortunately happens that of all merits belonging to works of art, durability is the most difficult to ascertain. Attempts are made to produce by exposure to the extremes of heat and cold, and to different qualities of air, the same effect which may be supposed to be the result of time, but as in all such experiments the element of time itself is wanting, they can at best only prove that the painting has a strong constitution for the present; they do not show how that constitution may itself become modified by future disease. Such tests are like the examinations by the physicians of insurance companies; they prove soundness at the time, and give the hope of long life, but not the certainty of it. In this uncertainty ought mural painting to be undertaken at all? The answer to this depends on our philosophy about permanence. Men of science tell us that the whole solar system, as we understand it, must come to an end some time, that the planets will either fall into the sun before its fire goes out, or revolve in unimaginable cold around an extinguished orb. Long before either of these alternatives can happen it will matter very little to our descendants whether paintings of any kind are durable or not. All our works are temporary; the massive buildings, on whose walls we paint as if for eternity, are themselves mere sheds and tents set up for a season. The Louvre was nearly burnt in 1871, the stone of our Houses of Parliament is rotting, the palaces of Venice are crumbling on their insecure and humid foundations. There is not a Gothic cathedral in Europe that does not require watchful and incessant repair. Only the rudest and simplest of structures, Stonehenge and the Pyramids, appear to have any chance of lasting with the planet. In the midst of all this destruction and decay it is idle to seek for absolute

permanence, but we may hope for a reasonable durability. This is enough for the moderate ambition of the wise, who do not expect their works to endure—

'Till all the comets in heaven are cold
And all her stars decay.'

The process of fresco-painting is as follows :—

Brick walls are preferred, and the bricks, as Mr. Cave Thomas tells us, ought to be well dried and of equal hardness. 'The surface of the bricks should be chipped, the better to hold the rough coat of mortar.'

The first rough mortar is a mixture of river-sand and lime, the proportions of which have varied, but in Italy they are said to have been two of sand to one of lime. This rough-cast is laid evenly, and left to harden for a very long time — for years even if the lime was fresh.

It will be a convenience, at this stage of our explanation, to use the Italian word *intonaco*, generally employed for the second coat, that of fine mortar on which the fresco is painted. This is composed of well-prepared lime and fine sand carefully washed, mixed in proportions which depend upon their quality. 'If the mortar contains too much lime,' says Professor Hess, 'it becomes incrusted too soon, is too smooth in surface, and easily cracks ; if it contains too little, it is not easily floated, the successive patches are not to be spread conveniently in difficult situations, and the mortar is not so lasting.' Mr. Cave Thomas and other authorities tell us that marble dust and pozzolano have sometimes been substituted for the sand.*

The essential peculiarity of true fresco-painting is that the *tonaco*, or second coat of mortar, is not laid all at once, but patches, according to the space which the artist expects to

* Pozzolano is a substance of volcanic origin found at Pozzuoli, near Naples, and elsewhere, and used for building purposes.

the effects of the colours upon each other until the whole was finished ; and I need not explain to any reader who knows anything at all about colouring that a space of colour is just as much altered by the hues of neighbouring spaces as it would be by a change in its own colouring matter. But, besides this inconvenience, which is common to all painting done in patches, there was another most serious inconvenience peculiar to fresco, the alteration of the colours by their fixing in the lime. It is only after the lime has dried, when the painter can work no longer on that place, that he can really know what sort of colouring he has been doing the day before. It would be difficult to imagine an equally serious inconvenience. There is something of the kind in water-colour, especially when body-colour is employed, and even in oil there are certain changes, but then in both these processes the artist has full liberty of subsequent modification and correction. The peculiarity of fresco is that whilst the colours change considerably the artist can only judge of the degree of change at the very time when it is out of his power to alter, except by total destruction and re-commencement.

Mr. Herbert's experience of the inconvenience of fresco led him to abandon it for another process ; and he has left his opinion on record in a letter addressed to Lord Elcho, which deserves to be quoted here.

'I am quite convinced,' says Mr. Herbert, 'that, however true the theory of fresco may be, the practice of it always has been, and will ever prove, next to an impossibility, if indeed any refinements or subtleties of art are attempted. I may be asked, have not the Italian painters left evidence to the contrary of this assertion ? I reply, using the words of Vasari, that in his time there was but one "true fresco in Italy," the melancholy condition of frescoes throughout the Conti shows further proof of Vasari's statement. Almost all really great colourists of Italy abandoned it after a few trials and the Michael Angelos held up to us as marvels of fr

have long since been in a hopeless state of decay. The smallest work in genuine fresco, carried to any point of excellence without employing the fugitive mode of completion, that is, vinegar and white of egg (so freely used by the Italian painters), would be an achievement only to be attained by successive obliterations and waste of life. Fresco may do admirably well where a slight bravura sort of art is required, but this should be the *passe-temps* for those whose aim is very moderate and whose employers are easily satisfied. Fresco has had a fair trial here, and is to give way before something a thousand times better in every way.'

It may, I believe, be considered now a settled truth about fresco that, *unless it is worked upon afterwards in tempura*, it is of necessity a slight form of art. It gives, in a rapid and very abstract manner, some of the results of studies done deliberately in other and more convenient ways. It does not, in itself, permit the quiet development of forms or the deliberate correction of thoughts, and therefore it is not so much an artist's process as a process by which a clever and skilful workman could give results already reached in better forms of art. This is clearly proved by the fact that all frescoes whatever are copies — copies done in many cases by the same artists who did the originals, but still copies of cartoons. Nobody that we ever heard of composed frescoes on the *intonaco* as oil pictures are frequently composed on the canvas itself. The mental suffering which fresco occasioned amongst English artists when they attempted it was probably due in great measure to an over-estimate of its rank amongst the fine arts. Michael Angelo had practised fresco, -- I had said something disparaging of oil in comparison with it, so an idea had got abroad that fresco was a peculiarly great art, which ought to inspire the artist to very high achievements, and every English artist who attempted it contentiously tried to do his very best. They all overshot the mark. Fresco ought to be looked upon as a slight and cheap

art, to be done without much effort and without any attempt at elaborate finish. It ought to be considered successful when it decorates a wall effectively and brilliantly, and comes tolerably near the colouring intended by the artist. It is to oil-painting very much what oratory is to literature. Nobody expects high finish of language in oratory ; if any one did expect such a quality he would generally be disappointed ; but we all expect promptitude, breadth, and brightness. An orator must not hesitate, he cannot at all afford to hesitate, but he may spread out his expressions and repeat them with what in literature would be intolerable verbosity. So in fresco, the artist may paint in a manner which would be considered very thin and unsubstantial in oil, but he must paint quickly and brightly. These slight habits of work are not easily acquired by careful workmen who have been accustomed to such a deliberate method as oil, and so it happens that when oil-painters turn to fresco they try to put more into it than the process naturally accepts. It is as if an orator were to attempt the fulness and finish of an essayist.

The very defects of fresco may have good results in art. Knowing that he cannot hope for much imitative finish, the fresco-painter is compelled to trust to much higher qualities, to the strength and originality with which his figures are invented, to the grace of well-studied lines, and the enduring charm of perfectly arranged compositions. The technical conditions being against him, he has to fall back upon intellectual and artistic excellencies, which are far higher than clever imitation ever can be. This is one of those instances, not infrequent in human affairs, where a material inconvenience results in a mental advance. Dyce observed that such qualities as correct drawing, elevation of character, and power of dramatic effect, still remained to the fresco-painter as must be his resources. Besides, in spite of its difficulties fresco is not without some special technical advantages of its own. ‘ Air is got much more easily in fresco than in oil

said Dyce; ‘it comes without any effort; if the artist is a tolerably good colourist the air comes of itself by the drying of the colours.’ Again, not only does the deadness of surface in fresco allow it to be seen in any light, but the brightness of it, owing to the brilliance of the mortar showing through the thin colour, makes fresco visible in moderately lighted buildings, where oil-painting could not be seen. When it was proposed to decorate Westminster Hall with mural painting, it was believed that fresco would be satisfactory even in the comparatively dim light there. And although the darks of fresco are not intense, its lights are so brilliant that there is still a sufficient distance from one to the other, and the scale, taken as a whole, is ample.

Fresco does not permit effects of chiaroscuro as they are understood in oil. It allows a certain range of light and dark, but it does not allow of shading which is at the same time dark and easily penetrable. It has darkness at command in some degree but not *depth* — the darkness of it stops the eye, and is generally better avoided. This deficiency deprives fresco of a great range of effects which charm us in the works of oil-painters; but then, on the other hand, it so happens that these effects are most undesirable in mural painting, as they do not harmonise with architecture. The object of mural painting is not to make us feel as if the wall were away, but as if it were covered with beautiful decoration.

One or two peculiarities of the *intonaco* ground remain to be noticed. It must be remembered that it is highly absorbent, and that it leaves colours, generally, darker than when they are laid on; but Mr. Andrew Wilson says, in a letter to his son, that ‘you can strengthen by simple repetition of tint,

if the day be very dry after an hour or two this process repeating with the same tint produces an opposite effect, *instead of drying darker it actually dries lighter.*’ Again, he touches of the brush remain wet on the surface, and no longer sucked in instantaneously, the painter must

give up working, as after that the colour no longer unites with the plaster, but will show chalky spots when it is dry.

The surface of a fresco is not necessarily flat. The artist can *load* if he likes with lime, just as if he were painting in oil, and there are many instances even of excessive loading in frescoes. The body-colour of fresco is lime.

The colours used in fresco are limited, because only those pigments can be admitted which resist the action of lime. It would not be an evil to have few pigments if we were permitted to choose the few, as an oil-painter may, from a list of many. Unfortunately the fresco-painter's limited palette cannot be chosen by himself—it is determined for him by purely chemical considerations. The list of colours used by the old masters embarrasses us a little by our uncertainty as to the exact nature of all the substances indicated by the names. I have not space in this book to go into that question in detail, nor is it necessary that I should attempt it, as the work has already been done by Mrs. Merrifield. 'The natural colours,' she says, 'are neither numerous nor brilliant, but the frescoes of Raphael, Michael Angelo, and others, irresistibly prove that the colours used by them were amply sufficient for all the purposes of fresco-painting. Some of these colours have for a long time fallen into disuse, and the knowledge of their value, application, and use, is in a great measure lost. Artificial colours and pigments have been improperly substituted, and failed of their object.'

It may be true that the old masters showed how they could do without artificial colours in the conventional colouring of frescoes, but the reader must always bear in mind, if he reasons about colouring, that dull colours can never, under any circumstances, and in any hand, however skilful, make a *complete palette*, consequently dull colours can but partially imitate nature. For example, amongst the fresco colours when you come to inquire what yellows are admissible, you are told that only yellow ochres can be allowed, because t

are the only yellows found in a natural state. Well, yellow ochres are most useful and valuable pigments, but a palette that has no brighter yellows than these is an incomplete palette, and the cleverest artist in the world can only effect a distant approximation to natural colouring by its means, unless he selects material in which bright yellow is neither required for itself nor as an element in mixtures. He might paint flesh with it, because it luckily so happens that there is not any bright yellow in flesh, but he could not paint a primrose, nor the lemon yellow of the evening sky. A bright red is equally necessary to a complete palette, and the old painters felt this, but they could not trust vermillion by itself. Palomino, as quoted by Mrs. Merrifield, says that 'in places exposed to the inclemency of the weather, neither the native nor the artificial vermillion should be used, because in a few days they both lose their beauty and turn to a dull mulberry colour.' This shows how dangerous the lime of the *intonaco* was to vermillion, for it stands well enough on wood or metal even in exposed situations, such as our shop-fronts. Palomino goes on to say that when the fresco was well protected vermillion might be used if it were laid over a dead colouring of red earth. Cennini and Aronenini, according to Mr. Cave Thomas, both 'distinctly say that vermillion will not stand in fresco.'

The fresco-painters are not so badly off in blues, as they can employ ultramarine and cobalt, as well as the best artificial ultramarines. They can use three most valuable greens — terra verte, cobalt green, and the green oxides of chromium. They have the umbers and siennas. They have to be careful about blacks, the safest for them being, it seems, burnt Cologne earth. For purple they have burnt vitriol, and another kind of burnt vitriol for lake. This list gives sufficient palette for figure-painting, but not a complete palette for everything. It does not include all that a painter might desire for costume and landscape.

The brushes used in fresco are limited to those of hog and otter hair, as the lime curls all others. This is not a serious privation for work on a large scale.

In a book of this kind, which includes so many varieties of art, the above may be a sufficient account of true fresco. I might have gone into the subject more fully, with reference to examples, had it seemed worth while to do so after the failure of the art in England ; but as it is not likely ever to be followed in our country, or in any northern climate, it is not probable that technical details concerning it will awaken the interest of any but a very few readers, and those few know where to find them in other writers.*

Some writers on art have regretted the failure to revive fresco. I do not regret it, but feel disposed, rather, to rejoice in it as a happy deliverance from a form of art which imposed most objectionable material conditions upon the artist. It enslaved him to the drying of mortar, to the fixing of colours ; it changed his hues in a manner beyond his control, and actually prevented him at the same time from effecting subsequent changes when his judgment perceived them to be necessary. Most of the qualities of true fresco may be preserved in its substitutes — the qualities of dignity, breadth, simplicity — may be got in any kind of painting whatever if they exist in the mind of the artist. I do not know that true fresco is inherently superior to other kinds of mural painting in any quality except one, and that is brightness, and even that is very closely approached by the processes which we have now to describe.

After the mental sufferings and the pecuniary losses entailed by the failures at Westminster and by the toilsome efforts to revive the art of true fresco in Munich, the advanc

* A great deal of interesting information will be found in the *Minutes of Evidence* taken before the Select Committee on the Fine Arts in connexion with the rebuilding of the Houses of Parliament, and in the Appendices.

chemical science of modern times came to the aid of the artists, by offering to fix a simple water-colour on dry mortar, as we now fix charcoal drawings. This excited the strongest hopes at the time, as it was found that paintings on dry mortar so fixed were able to resist very severe tests indeed, and it was confidently expected that they would withstand the effects of time and climate, but it could not be known beforehand how long they would resist the chemical elements in an atmosphere charged with smoke. After speaking of the true frescoes in the Houses of Parliament, Sir H. Layard goes on to say :—

' I was at one time inclined to assign this rapid decay to some defect in the materials employed, either in the pigments, the *intonaco*, or the lime, especially as the same deterioration had occurred in some of the frescoes at Munich (though by no means in all, it would appear), where at least the fault could not be laid upon the English climate. The Germans, however, attributed it to the effects of the atmosphere acting upon the exterior surface of the painting ; and to prevent this they invented a method of covering the fresco with a solution of silicate, called water-glass, which was supposed to be impervious to the air. The great frescoes by Kaulbach and others at Berlin have been painted on this principle, and Mr. Maclise and Mr. Herbert have adopted the process in their most recent works in the Houses of Parliament. It is perhaps too early to pronounce decidedly upon the durability of the water-glass, but there are grounds for fearing that it will not resist the insidious attacks of our London smoke. Dr. Percy, after a very careful scientific examination and analysis, carried on under official instructions, has come to the conclusion that no wall-painting, whether executed in buon-fresco or fresco-secco, can resist an atmosphere impregnated, as that of London is, with the chemical substances evolved from the consumption of coal. He doubts even the efficacy of water-glass, and gives it as his opinion that Mr. Herbert's well-known fresco will not be safe except under glass. The scientific stigitations of Dr. Percy have, unfortunately, been confirmed by practical experience of Sir Digby Wyatt.' *

From a paper on Mosaic Decoration read at a meeting of the Royal Institute of British Architects by the Right Hon. A. H. Layard.

Water-glass painting may be explained, in a general way, very briefly. It is simply water-colour on dry plaster, fixed afterwards with a solution of flint applied to it in spray as the solution of gum-lac is applied to a charcoal drawing. The colors used are the same as those in true fresco.

Several different kinds of water-glass have been employed. Four kinds were described by Dr. Von Fuchs. I give his receipts for them in a foot-note.*

The two main divisions of these solutions are the potash and the soda, sometimes called the kali and the natron water-glasses. The kali was considered the safer of the two, and specially recommended to Maclise by his German advisers. As to the ground, Dr. Pettenkofer counselled Maclise to have spread on a brick wall a coat of mortar composed of three parts of coarse sand, one of Portland cement, and a sufficiency of water. This was not to be more than half an inch thick, and whilst still fresh it was to be covered with a thin coating

* Potash water-glass is composed of —

15 parts of pulverised quartz, or pure quartz sand,
10 " well purified potash,
1 " powdered charcoal.

Soda water-glass : —

45 lbs. of quartz,
23 " anhydrous carbonate of soda,
3 " powdered charcoal.

Double water-glass : —

100 parts of quartz,
28 " purified potash,
22 " neutral anhydrous carbonate of soda,
6 " powdered charcoal.

Fixing water-glass : —

Produced by adding soluble silicate of soda to the ordinary water-glass; Von Fuchs does not say in what proportion.

The ingredients are first mixed by fusion at a very high temperature during five or six hours, like common glass, which the mixture resembles in appearance. It is taken out of the melting-pot and allowed to cool after which it is pulverised and dissolved in boiling water, and is boiled down to a sufficient degree of concentration. It can always be diluted with water afterwards.

of fine mortar consisting of three parts of fine sand and one of Portland cement with soft water. The best sand for this purpose was a carbonate of lime, and if the ground was to be very absorbent Roman cement might be preferred to Portland. The thickness of the coat needed not exceed a sixth of an inch, and might be less. Sand of the same quality as that used in the fine mortar was thrown against the wall as it was setting, and shaved away with a flat iron edge, more sand being afterwards thrown on the wall and allowed to stick and dry there. When the wall had dried the superfluous sand was swept away and the prepared surface wetted with a saturated solution of carbonate of ammonia.*

After practising water-glass for a year and a half, Maclige did not find that an extremely absorbent or an extremely rough ground was desirable. Tracing was very difficult on rough plaster, on smooth plaster it was clear. A very absorbent ground of Portland cement 'instantly sucked the wet colour dry from the painting-brush.' It was not fixed without great difficulty, and when the fixing was at last accomplished the painting was very much darkened by it.

The colours used in the water-glass process are the same as in true fresco, with the exception of lime-white, which is absolutely forbidden in water-glass and replaced by zinc-white, which 'from its delicate nature allows the water-glass to penetrate through it to the wall.' The lighter colour of the plaster itself may be left to play an important part, as paper is in water-colour drawings. Colours need not be mixed with white unless the artist desires it ; when he does not mix them his work answers to transparent water-colour ; when he mixes them with white it answers to body-colour.

Some colours are more difficult to fix than others. Ochres
fixed easily ; cobalt, black, and chrome red, are fixed

At one time the plaster was impregnated with water-glass before the
st began to paint upon it, but this practice was found to be unneces-
' and was abandoned.

with comparative difficulty. The fixing is done lightly and repeatedly, but so as not to produce a gloss. The instrument used for the purpose sends a spray which is found in practice to be better than an application with the brush, except in the case of the most rebellious colours.

Work already fixed may be painted upon again and fixed a second time, just as in a charcoal drawing you may retouch with charcoal and fix again with spray.

The superiority of water-glass over pure fresco is that the artist can carry forward his entire work at once in a comparatively deliberate manner. It is not so deliberate a process as oil-painting, but it may fairly be compared with water-colour, and indeed really is water-colour in the strictest sense, for the colours are mixed with water and nothing else. It is evident from the notes and letters of Maclise, whilst he was at work in the Houses of Parliament, that he was happy in the process, and glad to be relieved from the intolerable annoyances of true fresco. He was also full of hope and trust in the durability of the new process, and happily believed himself to be painting for a very remote posterity. We have seen that this confidence has since given way to doubts, but it is still certain that water-glass promises a longer existence in our climate than pure fresco.

Before leaving this part of the subject, I may say a few words on the mural paintings in the Houses of Parliament, considered with reference to that connexion of painting with architecture of which we spoke at the beginning of the chapter.

The two most important works in the whole building are the vast illustrations of the Wellington and Nelson epoch—the 'Meeting of Wellington and Blücher after Waterloo,' and the 'Death of Nelson.' By the choice of these subjects, each painted in a panel forty-six feet long and twelve feet high, the artist illustrated both the naval and the military history of England. They are both most interesting works, as they are truly historical pictures, as most of the pri-

figures are portraits, and the artist worked near enough to the events for him to procure from survivors the most ample information as to matters of detail. Maclise was one of the most industrious of men, and one of the most conscientious artists who ever lived — a man who never would willingly do less than his best, or rest contented with inaccurate representations of men and things, when, by taking trouble, he could attain a closer approximation to the truth. He was a sound draughtsman, but at the same time he was hard and analytic ; he did not receive those single-stroke impressions from nature in which objects are only seen in relation whilst their mystery is preserved. This caused a serious defect in his oil-paintings, which are tight in outline and hard in surfaces ; but for mural painting the artist's habits of sight and representation were less objectionable, because here the work naturally allowed a considerable degree of artificially exaggerated definition. I should not, therefore, feel inclined to insist much upon this with reference to mural paintings, for we expect them to be clearly outlined and quite devoid of mystery ; but if I were asked whether such paintings as the two great works in the Royal Gallery were the best adapted to their situation, I should be compelled to answer in the negative. They are not properly paintings which associate themselves naturally and easily with architecture. We see at once that the artist had been a contributor to modern exhibitions, and that it had been his business, and also no doubt his pleasure, to awaken popular interest by vivid representations of dramatic incidents. The two water-glass paintings in the Royal Gallery are, in fact, enlarged Academy pictures, bearing as little reference to the architecture of the room as a picture in the Royal Academy bears to the architecture of Burlington House. To prevent a possible misunderstanding or misrepresentation of this criticism, let me say that I should not at all think it necessary to introduce mediaeval architecture or mediaeval costume into the wall-paintings at Westmin-

ster. I would not be so narrow or intolerant as that ; I believe, indeed, that the representation of modern men in that building was just one of those innovations which are the evidence of life in art — that if a pseudo-mediaevalism had been carried through in everything the result would have been a deathful Chinese imitation of past forms. So far Macleish was right, but for mural painting I think his incidents were too agitated and dramatic. The military subject is the less objectionable of the two. If a battle scene was to be represented at all it was well to choose the time immediately after the battle, the time of mingled joy and grief, when the two great friendly commanders met with hearts full of deep gladness for the deliverance of Europe, and of sorrow for the loss of their comrades. The naval subject is equally interesting — it is even too interesting ; it carries us at once out of the palace at Westminster to Trafalgar Bay, and places us upon the very deck of the Victory, painted the actual size with bulwarks, spars, cordage, planks, all given with the vivid realism which startles us in the most effective panoramas. The incident represented is dramatic in the highest degree. The greatest naval captain in English history has just received his death-wound ; he is surrounded by his brothers-in-arms, full of anxiety and sorrow, whilst the nearest common sailors give evidence of their distress, and the others are still engaged in the hard work of battle. Now, the more successful the artist is in making us feel the reality of such a scene, in making us believe that we are actually on the deck of the Victory amidst roar of guns and crash of spars, the more he disturbs or destroys the effect of the architecture of the hall ; and finally it comes to this, that we utterly forget the architecture, and, so far as Sir Charles Barry's building is concerned, we might just as well be looking at a battle-painting in Waterloo Place.

'The Death of Nelson' is the extreme example of this kind of error at Westminster, but the pictures in the corridor are

like the line of an Academy exhibition at the time when they were executed, with this difference only, that, as fresco was more difficult for the artists than oil, and did not offer equal technical resources, the works are not so clever in execution as so many oil pictures would have been. I have already observed that by being placed under glass the deadness of their surface has been sacrificed. They can no longer be really seen. Even if they were properly visible they would still be far from the true conception of mural painting, because their picturesque naturalism and their too interesting incidents are remote from the conventionalism and the severity of architecture.

The subjects in the House of Lords, three over the Strangers' Gallery and three above the Throne, are much more within the province of mural painting.

'The Spirit of Justice,' 'Religion,' and 'The Spirit of Chivalry,' are quiet and dignified ideal subjects, perfectly adapted to their situations, and which do not set up any conflict with the architecture. The pictures above the Throne* are historical subjects of incidents illustrating chivalry, religion, and justice — incidents in which there is no disturbance, no violence, and not too much dramatic intensity. They harmonise well with the architectural effect, and interest us sufficiently without carrying us out of the building. Mr. Herbert's water-glass fresco in the Peers' Robing Room, 'Moses bringing down the Second Tables of the Law,' is a serious and noble work, with many of the severe qualities that are desirable in mural painting, yet the scene, considered with reference to mural painting only, is perhaps more spacious and more of a landscape than is quite desirable. It is very impressive. We are made to feel the grandeur of Sinai and

* 'The Black Prince receiving the Order of the Garter from Edward IV,' by Mr. Cope; 'The Baptism of Ethelbert,' by Mr. Dyce; and 'Prince Henry, afterwards Henry V., acknowledging the authority of Chief Justice Gascoigne,' by Mr. Cope.

the sublimity of those surroundings amongst which Moses always lives in our imagination as one of the most majestic figures in the Bible, but still the painting is less a decoration of wall-surface than a removal of the wall. It takes us out of London and to the stony Sinai range almost, though not quite, as effectually as Maclise takes us on board the Victory. In a word, though a fine and successful work, it has more realism than is compatible with the most perfect mural painting. One great merit it does possess — it is extremely luminous. The artist has done his best to rival the brilliance of true fresco, and has in a very great measure succeeded.*

Mural painting might be cheaper and easier if it were done in monochrome, like the noble fresco of Mr. Watts at Lincoln's Inn, but, unfortunately, for decorative purposes bright colour is generally felt to be essential, and bright colour becomes crude and offensive unless it is the work of a colourist. There is, consequently, not much hope that monochromes, which appeal more to the mind than the eye, will ever be generally associated with architecture ; but if some good and safe substitute for fresco can be found there is no reason why mural painting should not be extensively practised in a simple and expeditious manner. The right conception of it, as quite distinct from the production of highly-finished easel pictures, has been stated with admirable clearness by Mr. Armitage. 'It is astonishing,' he said in a letter to Mr. Beavington Atkinson, 'how effective a mere outline design filled in with flat tints, and with the shades merely indicated, may be made, provided such outline be of a grand and impressive form. It would be necessary before fresco could become general in the country, first, that the subjects selected for the decoration of buildings should be of a simple nature ; secondly, that the executi-

* This was accomplished by selecting an effect of broad open daylight, and by keeping as much as possible to luminous colours, but the artist also took the precaution of preparing his wall-surface with zinc-white before he began to paint upon it.

should be broad and rapid ; and, thirdly, that the artist should be willing to sacrifice a portion of his accustomed remuneration in the service of a noble art and for the honour of his country.'

The doubts about the permanence of water-glass have led to experiments in other materials, of which the most promising known down to this year (1881) is Mr. Gambier Parry's 'Spirit Fresco.' This is not more really fresco than water-glass is, for the *intonaco* is not fresh when the artist paints upon it, but it is a kind of painting upon mortar with a dead surface, which has at the same time very nearly all the qualities of true fresco and the inestimable advantage of the greatest possible executive convenience. This quality of executive convenience may not be of much interest to the general public, which has nothing to do in a practical way with the implements and materials of art, and yet, as I will clearly prove, it very closely concerns all who take any serious interest in the fine arts. When the processes of art are tedious, uncertain, and disappointing, its results are likely to be imperfect, fugitive, and costly ; when the processes are delightful for their facility and for the perfection with which the artist expresses his ideas, then it is likely that his work will reflect his mind more faithfully and that he may afford to give it at a lower price. Everybody knows how seriously a bad pen and unpleasant paper interfere with the expression of thought, yet these are small troubles in comparison with those of the true fresco painter, for when the writer's idea is once expressed it does not alter afterwards, whereas the colours of fresco are altered both by their own drying and by the juxtaposition of the patches yet to come.

With the 'Spirit Fresco' an able artist may do whatever he likes. Sir Frederick Leighton, at my request, kindly wrote his opinion of it after finishing his large mural painting of the 'Arts of War' at South Kensington, and here it is in his own words : —

'I think the "Spirit Fresco," as it is called, I don't know why,* a most delightful material — it is particularly easy to manipulate, and in its results highly satisfactory. It has, indeed, neither the lightness, nor, on the other hand, the dignity of pure (*buon*) fresco, but it has greater variety. This is perhaps a doubtful blessing. Meanwhile it is, as far as I can see, perfectly durable.'

Already, in 1864, Leighton had written to Lord Elcho nearly in the same sense, though after less considerable experience : —

'As I am, to the best of my belief, the only professional painter who has worked with Gambier Parry's spirit fresco, it may be convenient to you to refer to my unfinished works at Lyndhurst. I therefore send you two or three details, which may interest your audience. The merits of the material are chiefly these : Great similarity of result to *buono fresco*, which it approaches so nearly as to deceive anyone not conversant with the practice of painting ; great scope of colour, as it embraces the whole oil palette, and is not subjected to any of the limitations which are peculiar to fresco ; great facility of manipulation, admitting of washes, impasto, and glazing within the space of a very few hours ; little or no change in the drying, not more than in water-colour drawing on absorbent sketching paper — Harding's for instance ; facility of retouching, as the surface is always soluble in spirit, though proof against water. The only point in which it is inferior to real fresco is in the absence of that pure crystalline quality of light so peculiar to the latter. On the other hand, it has, in a great degree, that other quality of fresco which is the Alpha and Omega of all grand monumental work — gravity — dignity.'

The wall is prepared for Spirit Fresco by being covered with a stucco composed of two parts of thoroughly slaked

* This little criticism of the title is very just. The process is not fresco at all, but mural painting on dry mortar more nearly related to temp the yolk of egg being replaced by Mr. Gambier Parry's medium. Nei is the diluent what we commonly understand by spirit, but is an esse oil often used in oil-painting. Real spirit fresco would be done on fr *intonaco* with an alcoholic medium. The reader will find something at a true spirit process in the chapter on Water-colour.

lime and three of perfectly washed white sand.* This stucco is not covered by any subsequent coat or layer of a finer kind answering to the *intonaco* of true fresco, it is left absolutely as it is, so far as the plasterer is concerned. It is, however, primed for painting as follows: Two ounces by measure of the 'medium' (which will be described shortly) are diluted with three ounces of spirit of turpentine, and the surface of the stucco is well soaked with it. Two days are allowed to elapse, and the surface is soaked again. After this the wall is thickly painted twice over with a mixture of pure white lead in powder, and of pure whiting worked up in the 'medium' and diluted with about one-third of spirits of turpentine. This mixture dries in three weeks, and gives a white surface, which is absorbent. So far as luminous quality is concerned, it will be noticed that this preparation is very like that for Mr. Herbert's 'Moses.'

The medium is prepared by melting two ounces by weight of elemi resin with two ounces by measure of spirit of turpentine, and straining the mixture through muslin. To this are added four ounces of melted white wax. Whilst the whole is still warm the maker adds twenty ounces by measure of the finest picture copal, and boils altogether to a white foam, stirring thoroughly and then removing the vessel from the fire. This done, the mixture is boiled again, and five ounces by measure of oil of spike are added just before the vessel is finally removed.

The reader will have noticed in Sir Frederick Leighton's letter that the range of pigments is that of the oil palette, and that this kind of painting 'is not subject to any of the limitations which are peculiar to fresco.' All the colours have, however, to be ground in the medium itself, and not in oil or ater. The diluent used in the actual work of painting is oil i spike, and the method of painting requires some rapidity

* This account is abridged from that which appeared in the *Portfolio* : November 1880.

and decision, that the spike oil may not have time to dissolve what lies beneath. ‘Any portion of the painted surface that may have become *quite hard* is to be moistened with spike oil before repainting or retouching.’

From this account it will be seen that the process depends chiefly on the binding power of wax and resins, and on the deadening effect of oil of spike. The proportion of white wax is considerable, but its disposition to make pictures flow or crack is counteracted, first, by the nature of the ground, and secondly, by the hardening power of the elemi resin and the copal. The result is a medium which becomes sufficiently hard and resisting without gloss. I have not seen any works in this medium except Sir Frederick Leighton’s ‘Arts of War’ at South Kensington ; but that, so far as it can be judged after so short an existence, is in all respects satisfactory. The surface is perfectly dead, like true fresco, so that the picture can be seen from any point, and there is great brightness and variety in the colours. I cannot help feeling a little surprise that Sir Frederick should have liked so rough a surface, and it seems that when dirt from the London atmosphere has accumulated in the innumerable little caverns of the stucco, which are relatively very deep, it will be extremely difficult to ferret it out again, but however this may be, the present effect on the eye is most agreeable at a little distance. This picture must not be left without a word about its general qualities as a mural painting. We have spoken about Maclise, and the choice of some of his subjects, not, let us hope, in such a manner as to leave an impression that we underrated a man of his great ability, but still so as to question his judgment with reference to the particular department of art treated of in this chapter. I should say that Maclise was a very clever man, who did not quite recognise the due limits of mural painting, and who brought to it a style and a selection of subjects better fitted for oil pictures, and even sometimes for the panorama. I should not say this of Leighton. Such a str

ject as the 'Arts of War' put his judgment to a very severe test. In an age so proud as ours is of great guns and massive armour, there was a strong temptation — I mean the temptation would have been strong to minds of a certain order — just to go to the works of Krupp at Essen, or to those of Sir William Armstrong at Newcastle, and there find the whole picture ready to hand in the action of brawny men perspiring before glowing furnaces in a mystery of smoke, and steam, and dust. Such a representation of the 'Arts of War' would have been perfectly satisfactory to that spirit of the present hour which has been called the temper of the newspapers; but would it have been in accordance with the best spirit of mural painting? There is the question. The painter has answered it in his own practical way, steering clear, with a wariness and caution which deserve respectful acknowledgment — steering clear of that too tangible reality which is perilous to all graphic art, but which is most especially perilous to the dignified and sober art of wall-painting. A few Italian gentlemen of the fifteenth century are examining and trying the productions of their armourers; they stand in elegant groups in their brilliant dresses of peace, under a bright sky with fair architecture behind them. In the foreground beautiful women are at work with the needle, they, too, being elegantly dressed and not unpleasantly occupied. Out of these materials a stately and beautiful picture may be composed by one who has the gift. Out of the grimy interior of a modern arsenal you might get effects of mystery and gloom, powerful in their way, but utterly unsuitable to fresco, or to anything resembling fresco.

In despair of attaining real permanence in any kind of inting on mortar it has been proposed to use mosaic as a substitute for mural painting. No doubt mosaic is in a very high degree decorative, but it bears the same relation to wall-painting that Berlin wool-work bears to a drawing on paper. Every drawing that is reproduced in little squares, each of

which is of one colour throughout, must be barbarous and inadequate in comparison with the freedom of an artist's own manual design. In comparison with such a piece of work as the wall-picture just described the most elaborate mosaic is a rude affair ; in short, the whole art of mosaic is comparatively an art of an inferior grade. It is, however, extremely effective as an auxiliary to architecture, because it is not too subtle and delicate, and easily appears to form part of the architecture itself, whilst from its inevitable conventionalism it never opens windows in walls, but is visibly a decoration of wall-surface. Again, it is the only kind of wall decoration which can without crudity maintain anything like an equal contest with the splendour of stained glass. The drawing in it may be quite sufficiently delicate for such purposes, and, without going into the refinements which belong to the pencil alone, it may give majestic human forms against splendid conventional backgrounds. Notwithstanding these qualities, it must, however, always be borne in mind that mosaic is a most dangerous kind of decoration to employ at all unless it is employed lavishly. If, in a chapel, you fill up a panel or two with mosaic and leave the others white the effect will be that of riches and poverty side by side. It makes bare walls look cold, and even in the Albert Monument the effect of it (along with the gilding on the principal figure) has been to give the marble sculptures an additional chilliness. Mosaic is not unfavourable to architecture, but it kills all sober painting and injures all non-metallic sculpture. It belongs strictly to the same category as stained glass and illumination, being in fact itself illumination in a very permanent form.

I shall have something to say of oil-painting as a means of mural decoration, but prefer to reserve this part of the subject for the chapter on Oil-painting in general.

CHAPTER XXI.

PAINTING IN OIL AND VARNISH.

I.—THE PRACTICE OF SOME OLD MASTERS.

THE vast influence of material conditions on the development of art has never been more evident than in the effects of varnish and oil. Let the reader imagine, if he can, what the condition of painting would be at this time if it had always been confined to fresco, tempera, or water-colour. He must not suppose even that water-colour itself would be the vivid and various art that we know under that name. Modern water-colour owes half its force, and more than half its intellectual interest and variety, to the opening of the European mind by the extensive practice of oil-painting. What it would have become by itself nobody can precisely say, but a guess may be formed from the way in which it lagged behind oil for centuries.

If painting had been confined to fresco the principles of art would have continued to be decorative. The full study of nature, in the modern sense, would not have been encouraged or pursued. Men would have simplified and defined everything ; mystery and chiaroscuro would not have been amongst their studies. Colour, even, bright as it is in some frescoes, would not have been what an accomplished modern oil-painter understands by colour, but a far more elementary arrangement of hues, with little of the subtlety of nature and nothing of its confusion. The whole art of painting would, in short, have been held down permanently in an elementary condition so far as technical development is concerned, and this not for want of genius in

the artists, but because lime and sand are ungrateful materials to work upon and water a poor medium.

There was a better chance with tempera. It is not so permanent as fresco, except in dry situations, but its medium, yolk of egg, is richer than water, and affords some chance of greater amplitude in work. Still, even tempera is greatly inferior to oil in facilities for producing rich surfaces on the picture itself and rich textures imitatively. It is quite true that tempera painting, when varnished, looks deceptively like oil, but it is not like the oil-painting of a skilful modern artist. It has never the *morbidezza* of the best modern painting ; it looks clear enough, precise enough, but it looks hard at the same time. If tempera had remained the medium for easel pictures we might have been all painting up to hard outlines to this day.

Another curious consequence of this would have been the state of modern criticism. Critics are taught by artists ; without works of art to learn from they would sit inarticulate before the natural world, and that natural world in its aesthetic aspects would be for ever unintelligible to them. If, then, the art of painting had stopped short at fresco or tempera, criticism would have stopped there too, and strangely narrow and limited it would have been. Some idea of its probable condition under such circumstances may be derived from the wonderfully feeble state of art-criticism in antiquity, when only definite form was understood, and nobody knew anything about those visual effects on which the modern art of painting is founded.

The simple discovery of a rich and unctuous medium which does not dry fast, does not much discolour the pigments, and upholds them so as to prevent running, has done more for painting, and for the knowledge of nature in connexion with painting, than all the wisdom of the ancients.

The greatest gain by the discovery of oil-painting has been the possibility of really deliberate work. The oil-painter may be hurried by poverty, by the necessity for appearing at an exhibition, or by the exigencies of a sitter, but he has at least on-

inestimable comfort, he is never hurried by his materials. The fresco-painter was a slave to the setting of plaster ; the water-colour painter is a slave to the drying of a wash ; the painter in oil can work in perfect tranquillity, and has time to think and to dream. The value of such a condition of things to the intellectual and imaginative faculties is beyond all estimate. It has been their emancipation from the tyranny of matter.

The advantages of this discovery are not limited by the constant opportunity for deliberation. Oil-painting favours technical skill in many ways, and in one way especially, which includes the rest—it gives the artist a range of technical contrasts and oppositions unequalled in variety and extent, I will not say by any other kind of painting, for that would be less than the truth, but by any other kind of graphic art whatever. The discovery of the unctuous medium gave us a means of expression which was not only far more powerful than any other of the graphic arts, but also incomparably more flexible and various in its efficiency. Before this chapter has reached its close I hope to show (it cannot be done in a sentence) that of all the graphic arts oil-painting is that which most readily adapts itself to the varieties of human genius. Instead of being one language only, with one set of qualities, it is in itself many languages at once, with all their qualities, however dissimilar, however apparently incompatible. The proof that this is a simple statement of plain truth, and not a rhetorical exaggeration, is that all civilised nations, though differing widely from each other in their feelings about nature and their tastes in art, find that oil-painting best expresses their own peculiar idiosyncrasy. In Italy, the land of fresco, oil is the dominant art ; in France, which brought pastel to unrivalled perfection, pastel has not a chance before oil ; in England, where water-colour has been so skilfully practised and intelligently understood, every Academy exhibition shows the predominance of oil. Turn where you will, to the great schools of Austria and Germany, or to the schools of Belgium, Holland, Spain, Scandinavia, America, you always find this art of oil-

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painting adopted as the chief artistic language of the country. Fresco has died out before it, tempera survives only in its lower forms (who now thinks of painting a gallery picture in tempera?), and by the unanimous consent of civilised mankind it is decided that in this great, wonderful organ of oil-painting there are stops enough for all the multitude of their voices.

I hope that the critical reader will not expect me to give him anything like a history of oil-painting in this place. With the limited room at my disposal I could not discuss historical questions, many of which are obscure and complex, without deviating too widely from my own path. If the reader is interested in them he should study that most valuable book, Sir Charles Eastlake's *Materials*, a book which is my best excuse for not going much into the history of the art, both because it has occupied the ground before me, and because it fills a thousand pages, whilst I have here but a single chapter.

There are, however, one or two points of importance in the history of painting which we cannot afford to neglect even when our purpose is technical. The reader may have observed that I head my chapter with the title 'Painting in Oil and Varnish.' This title is chosen in order to mark with more than usual distinctness the historical importance of varnish in what is commonly called oil-painting. Of the two it might more accurately have been called varnish-painting, at least in its earliest and its latest practice, for in 'oil-painting' of the primitive kind varnish was the real medium, and in modern 'oils' megilps are employed which contain a large proportion of varnish, and owe to it their jelly-like consistency and their brightness. It has often been made a reproach to modern oil-painters that they paint in anything but oil, yet in the free employment of varnish they follow one of the oldest and, let me add, one of the sound traditions of their art. It is, indeed, a mere accident that painting without egg or water should have been called oil and varnish painting. In a gallery of old pictures, or in a modern exhibition, varnish exists in abundance, and that not simply

a surface covering, but in the constitutions of the works themselves. The real reason why we speak of 'oil' so generally is because the colours are originally ground in oil, which is more convenient for that purpose than any solution of gum. Besides this the gums themselves are either dissolved in oil or in some essence which mixes readily with oil.

Hubert Van Eyck is supposed to have been the inventor of painting in oil varnish. The old art historians tell us that his brother John was an experimentalist in 'oils, resins, and other natural and artificial things,' and the result of his experiments was the adoption of varnish-painting, which, as he wisely practised it, was both brilliant and convenient, and which the experience of four hundred and fifty years has proved to be wonderfully durable.

The following extract from Sir Charles Eastlake's *Materials* gives, in a few words, the result of his researches about the earliest processes of varnish-painting :—

'The varnish of Van Eyck was oleo-resinous, and its immixture with the colours supposes that it was rendered nearly colourless. Still, this result, by whatever means effected, may not have been attained at once; the first inventor, Hubert, may have been content with a darker medium, and it has been observed (without reference to this question) that his pictures and those of his scholars are, not unfrequently, really browner in tone than those of John Van Eyck. The improvement, indeed, is likely to have been gradual in all respects, and Vasari was quite safe in asserting that it was so. For the same reason the extent to which tempera was employed in the first experiments may have been far greater than in the later works of these painters. The thickness of the vehicle, in its less perfect state, rendered it fit only for flat glazing tints; till that defect was remedied (and it must have been remedied) pictures executed in the new process could have been little more than tempera preparations, tinted with transparent varnish ours.'

The transition from tempera to varnish-painting would naturally be by first varnishing the tempera for its preservation, and

for the shining appearance which is so delightful to popular taste. After that, the varnish itself would be tinted and used as what we now call a glaze. Finally, the tempera under-painting would be discarded when it was found that all the colours could be mixed with the oily or varnish medium.

The early history of varnish-painting is, however, not quite so simple as this brief account of it might lead the reader to imagine, because tempera was often employed in the earlier processes of a varnish-picture as water-colour has been in modern times under what we call oil-painting. Some connoisseurs believe that they can detect tempera under the oil-painting of men whom we consider the ripest masters, and that the use of it, as an auxiliary or a preparation, persisted much longer than is usually imagined. The reader will easily understand that tempera and oil or varnish painting may be combined in the same picture ; the artist has only to varnish a tempera painting to make it pleasant enough to work upon afterwards in the same varnish. The safety of the combination is another matter ; that depends upon the quantity of egg used with the tempera pigments, and upon the quality of the varnish. I only say that pictures may be, and have been, painted in that compound manner ; I should be sorry to make myself answerable for the consequences of such experiments.

It is time for us now to leave tempera without recurring to it, and to direct our attention to the pure varnish-painting from which tempera was excluded.

The process was, briefly, as follows : — A panel of well-seasoned oak was prepared by being covered with *gesso*, a mixture of whiting and size, the size being in quantity sufficient to make the gesso able to resist oil. On this non-absorbent surface, scraped perfectly smooth, the artist made a pure and care linear drawing, the primitive idea of painting being not what understood by it in a riper stage of the art, but simply a drawing coloured afterwards. The drawing itself was made in ink either in ink or black chalk, and it was sometimes shaded. Ov

it was passed a priming, that is, a very thin varnish painting which would show the drawing through it with the addition of its own tints, not strong tints, but sufficient to suggest the subsequent colouring without darkening the panel, which had to be kept luminous. This priming having dried, all the shadows were painted with brown mixed with varnish, and transparent. The picture was now well advanced according to the practice of those days, when painting went on by regular safe stages. The next thing to be done to it was the colouring, which was carried on in the most careful way all over it, one great rule being to keep all the light parts as thinly covered with pigment as possible, in order that the light from the panel might shine through. In that primitive painting men did not care so much to keep their shadows thin.

To recapitulate. This early practice included four processes — 1. A careful drawing (not a sketch). 2. A priming (sometimes omitted). 3. A shading in transparent brown with varnish. 4. The colouring of the whole.

The reader will see, as we pursue the subject, that however apparently perfect the results of these processes may have been in their own way, it was impossible that artists of energy and genius could bind themselves for ever to such a methodical art as that. After further experience, it was discovered that there was no real necessity to preserve the light of the gesso ground, because luminous quality could at any time be recovered by painting a passage in solid white, and then painting thinly upon that. At a later period it was also discovered that there was no real necessity for anything like finished drawing in the earlier stages of the work, but I cannot pursue this part of the subject just at present, because it would lead me on too fast.

It will have been observed that at the end of the third process in early Flemish painting the work was still but little more than monochrome, and when the priming had been omitted it was really and simply a monochrome. Before going farther, let us consider a little what has been the office and the importance of

monochrome in oil-painting, as a foundation for subsequent work in colour.

The advantage of it, as a preparation, is that it gives a foundation of light and dark which is valuable as a guide to the light and dark of the picture in colour. The danger of pure colour, without a monochrome preparation, is that unless the artist has had much training in work done for tonic relations only, he is likely to be carried away by his interest in the *hue* so as to forget the relation, as mere light or dark, of one colour in his picture to another.

To make this clear, let me give an example from my own experience of landscape, as there is nothing like personal experience in these matters. The real colour of the fresh-water lakes in the Highlands of Scotland is brown, from the peat ; when the sky is unclouded its blue is reflected on the water, and as the water itself is dark already, the blue looks very dark. If an artist were to paint it as it struck him, he would probably err in depriving it of light, but if he first painted his landscape in monochrome he would give the lake its right relation to the trees and rocks on the shore, being no longer tempted by the azure. Afterwards, on the monochrome foundation, he would easily add, with its guidance, just that temperate degree of blue which might be compatible with the true opposition, as light and dark, between the lake and the foreground.

This is a single instance ; but there are thousands of cases in which colour tempts an artist to go beyond the mark, when a monochrome foundation would keep him faithful to the tonic conditions of his work, and here is the reason why the careful old Flemish and Dutch painters were so fond of a preparatory monochrome.

Again, it was found by experience that if the brown of monochrome was very carefully and judiciously chosen, it helped the pleasantness of the picture by tempering the crudeness of the colours. There were many tints which looked crude thin upon a white ground, and yet looked comfortable, pleas-

well sustained upon a warm golden brown. The Dutch painters disliked crudity very much ; they were not always very learned colourists so far as range of palette was concerned, they contented themselves too easily with brown shadows, yellowish lights, and grey half-tones, but they could not endure raw and staring colour, so they clung to monochrome preparations with a tenacity which may seem surprising in an age like ours that is impatient of all preparatory labour.

The objection to monochrome beginnings is that if they are carried into detail they compel the artist to follow them minutely in his colouring, so that he is no longer free to do as he likes, but has to follow a set task in the final stages of his picture. This is the reason why modern artists have generally a dislike to monochrome and do without it. A very few remain faithful to the old practice, one of the few being Sir John Gilbert. He does not always bind himself down to it absolutely, but it is his favourite method. The following extract from a letter which he wrote to me will interest the reader :—

'The system of monochrome foundation is that of the Flemish and Dutch schools, and it is as applicable to landscape as to figure pictures. Rubens got in his landscapes in brown *all over*, so did Teniers, so did the Dutch landscape and marine painters.

'They put in all the forms, clouds, distant hills, &c., middle distance, and foreground with brown, raw umber, raw umber and burnt sienna, raw umber and black. Some used warmer browns than others. This work dry, they went all over the canvas with raw sienna or raw sienna cooled to a kind of dun colour.

'The blues of the sky were thinly painted over this ground after it was thoroughly dry. By looking carefully into their landscapes you will see the ground shining through the blue. This gives air and prevents coldness. You will see it in the shadow of the buds, and you will not fail to see it all through the rest of the picture. It is more apparent as it comes to the foreground, which in fact almost left as first prepared. See Teniers and Rubens, I indeed all of them.

'In the works of Rubens and Ostade the brown preparation is

very warm; in Teniers, Van de Velde, and others, it is less warm, a dull brown, sometimes a sort of cane colour, but in all cases, in *all* their landscapes, the monochrome system prevails.

'Through their bluest skies the ground tint is to be discovered. You can get the most lovely variety of greys in this way, scumbling lightly a cool tint over the warm preparation; no opacity, no heaviness, no *paintiness*, and then what rich greens can be got with this system! I cannot conceive a process more adapted for landscape than this one.'

In the La Caze collection in the Louvre there are several examples of painting on monochrome in which the process may be easily followed. An 'Interior,' by D. Teniers shows it with very little work on the brown, and that only in grey. The brown in this case is very thin raw umber, entirely used for the first painting, and on this the artist has very lightly scumbled a grey made of white and black, or white and blue black. There are also light touches of pure white here and there; for example, on a pot. This picture is catalogued simply as a 'grisaille,' but it seems to have been begun according to the artist's usual method, and with the intention of colour. Another work by the same artist, 'Une Tabagie,' is also begun in raw umber, which is left for the trousers of the man who has his back to the fire and for the whole of the man in the background. After this reserve the painter divided his colouring into two concurrent schemes, cold and warm, the cool colour being a scumble in a sort of grey (sometimes violet by opposition), the warm only the brown foundation intensified, and with one fiery note, a red cap. The whole principle of this kind of work was to modify the brown by cool tints in one direction and warm ones in another. It is astonishing, when we have once carefully analysed works of this class, how all the colouring in both directions is derived from the brown, either by cooling or heating, and how a slight modification will turn the brown to the most different tints. In faces it is modified into flesh-colour, fields it is just sufficiently greened, but it is really and fun-

mentally brown still, if you look well into it. The device of the red cap was a well-known old artifice, by which the spectator's attention was taken away from the brown, and he was made to believe in the existence of far more colouring than that which he positively saw. There is so little green on many Dutch trees that it must have faded away and left the ground visible again, as we often see it.

There is always a danger in painting upon a decided ground of any kind, whether brown, red, or grey, which is that in course of time the colour-work upon it may get thinner with age and show the under-painting through it. From this it may be concluded that if we use monochrome as a foundation for colour-work the monochrome itself should not be disagreeable to the eye, and not too strongly contradictory of the work above it, as a time may come when it will show itself again, like the corpse of Caraccioli after Nelson had hanged and sunk him. There is nothing more distressing than these reappearances, when the ground is in itself chilly and dismal, and this is one great reason why care is generally taken to have it of a golden brown that will almost pass for colour in itself; indeed, many an admired picture consists of very little else.

It does not appear that in Flemish or Dutch painting the monochrome was ever done in thick, opaque pigments, as it has been in more recent times; the artists were probably anxious to preserve a pleasant transparency even below their colour, knowing that it would show through more or less at all times, and still more as the picture altered with age.

We have now to pass from the principles of Van Eyck and his disciples to the maturer principles of Rubens.

The Van Eyck system of painting may be conveniently remembered as that which showed the light of the ground itself through the colours, the ground being considered the source of light. In the method of Rubens the lights of the picture were thrown afterwards in opaque colour, and the shadows only were transparent. This change of method was an immense gain in

technical convenience, and also in the expression of knowledge and power. The gain in convenience was due to this, that there was no longer any necessity for a careful preservation of the ground or a careful following of a formal design ; the gain in learned and powerful expression was due to the far greater degree of what may be called executive activity in the lights. In the early style of painting the lights were almost passive parts of the picture, parts which had been little painted upon and not obscured ; in the later style they were no longer passive, and they were not simply equal in executive activity to the shades, but far superior, as in them the artist now put his most visible energy. Here again let me remind the reader of the great truth which these technical studies are incessantly teaching us, that they are not simply material affairs but mental. The change from Van Eyck to Rubens is, in fact, a diversion of mental as well as manual energy from one part of the picture to another.

Another most important characteristic of this revolution was that expression by brushwork, by actual handling, became an important quality in the art. Early varnish-painting expressed nothing by handling ; faces might be made expressive, though they were generally too placid for that, but the painting itself, the method of laying on the pigments, was absolutely neutral. In a word, the technical art was passionless, and therefore not in itself alive, gaining only a secondary life from the beings that it represented. A nature so energetic as that of Rubens could never have rested satisfied with a style of art in which the manual performance conveyed nothing of his physical and intellectual force. Like a great modern musician, he required an instrument obedient enough to manifest the abounding life that was in him. In his manner of painting he not only sets images before the spectator but communicates himself. In the paintings of Van Eyck the subjects live, in those of Rubens it is the artist himself who lives.

There has never been a more important change of meth-

than this, which I have justly called a revolution. It added incalculably to the vitality of works of art, for in quite a new sense it gave life to the canvas and paint. All painting which has followed the main principle of Rubens is living work, because it shows us the artist actually working before us. Even the inequality in the thickness of the pigments on the canvas, which is so characteristic of Rubens and his followers, is in itself an element of life. His lights were thickly painted, but it was especially by contrast with his shadows, which were painted very thinly indeed. This consideration is of consequence, for if both lights and shadows had been painted thickly, if there had been, say, an inch of solid pigment on both of them, then the lights would never have appeared loaded any more than they do in a smooth mosaic made of thick cubes of marble.

The principle of vivacity was stated in words by Rubens himself, for he said it was necessary to lay and leave undisturbed those characteristic touches that he called 'the distinctive marks of great masters.'

Hoogstraten, the pupil of Rembrandt, also said how desirable it was to cultivate vivacity in handling. 'It is above all desirable,' he said, 'that you should accustom yourself to a lively mode of handling, so as to smartly express the different planes or surfaces (of the object represented) giving the drawing due emphasis, and the colouring, when it admits of it, a playful freedom, without ever proceeding to polishing or blending, for this annihilates feeling, supplying nothing in its stead but a sleepy constraint, through which the legitimate breaking of the colours is sacrificed. It is better to aim at softness with a well-nourished brush, and, as Jordaens used to express it, "lay gaily on the colours," caring little for the even surface produced by lending; for, paint as thickly as you please, smoothness will, by subsequent operations, creep in of itself.'

Before leaving Rubens it is necessary to take notice of a strong prejudice that he entertained against the use of white in adows. He had emancipated himself from the Flemish tra-

dition with regard to the lights, but still believed it to be necessary to keep shadows transparent from the first. This was a lingering of tradition in a mind generally independent. It can easily be demonstrated that there was a fallacy in this great artist's reasoning about white in shadows. He used white grounds, therefore there was white, the white of the ground, under every shadow that he painted. It may be presumed that he did not consider the white of the ground a 'poison' beneath his shadows, since if he had thought it injurious he would have taken the precaution to paint upon dark grounds. We may even argue that Rubens used white grounds because they had a good effect under shadows, for they kept them transparent by shining through the thin colouring he used in them. He certainly did not use white grounds for their effect in the lights, as the early Flemings did, since, as he loaded his lights, it signified very little what sort of a ground lay under. His prejudice did his work no practical harm, but it was theoretically wrong, because it did not take into account the principle of *recovery*, which in the mature art of oil-painting is of the highest possible importance. There is no difference, in final result, between using a white ground in shadow and painting it with white at a subsequent stage of the process, if only such painting be covered with a transparent glaze. Artists not less eminent than Rubens have admitted white very freely into their shadows without considering it 'poisonous' at all, only taking the precaution to combat its objectionable opacity by subsequent glazes, more or less rich and deep, by which they obtained any degree of transparency that they needed. Eastlake observes that Rubens could not, and did not, dispense with white in light reflections; and I may add to this that his rule was more applicable to the painting of figures, which are generally seen near, and to other foreground objects, than to effects of distance such as landscape painters have to deal with. Whenever much atmosphere intervenes, although air is in the ordinary sense very transparent, certain degree of what artists call opacity must inevitably exi

A piece of solid slate or granite in the foreground has more of the quality, in shadow, that painters call transparency than water has in the distance, and you may represent the shaded parts of slate or granite with considerable force and accuracy by means of transparent colours only, whereas you will need the opacity of white to give truth to your distant sea ; and so in mountain shadows, without a certain degree of opacity they would lack distance, and the more they are remote and pale the more do you need white in them, or some light pigment approaching its body and opacity.

It may be convenient for the reader to remember that Van Eyck, by the adoption of an oil-varnish as a medium, gave to painting a transparency and a brilliance, and to artists a possibility of tranquil and deliberate labour, which were not compatible with methods previously known. The quality won by Rubens was manual accent or vivacity. The powers so gained are not merely of archaeological interest, they have become a part of the tradition of painting, and are preserved to this day in much of the best modern work. It must be remembered, too, that Rubens continued the old Flemish practice of using varnish in painting, and that this practice has also survived to our own times. Entire objects, such as trees, are sometimes painted very thinly in his pictures, whilst more distant parts are in thick impasto. In the autumn view of the Chateau of Stein * the pollard willows near the brook are thinly painted, but the water and ground seen between them are heavily loaded.

Rembrandt painted in the most different styles ; in his middle manner with delicate finish and almost even surfaces, in his latest with great rapidity and very rough surfaces indeed. He liked decided superposition better than blending. 'As the practice of Rubens,' says Eastlake, 'was not to blend the colour much with the tint that was next it, so the method of Rembrandt was not to mix the superadded pigment with what was underneath it, except in final operations, when, to conceal the

* In our National Gallery.

art, the brush was allowed here and there to plough deeply. Mansaert remarks that Rembrandt rarely blended his colours, laying one on the other without mixing them.' As Rembrandt was a great etcher he was by no means afraid of the accent given by lines that go in different directions; and, whether he thought about it or not, he would feel that the brush-marks in painting answer to those lines of the needle when it shades. The mature style of Rembrandt with the brush goes on the principle of showing the work, and of influencing the spectator by letting him see how the artist actually applied the colour. This is not objectionable, but the contrary, so long as such a frank manner of painting is sustained by the requisite knowledge; but when, as often happens in modern times, the knowledge is insufficient, it does not afford a decent cloak for ignorance. A smoother and more laborious method makes cruel exposure far less to be apprehended.

The invention of oil-painting was of the greatest use to Rembrandt, as without it he would never have expressed his genius adequately in colour. It gave him full opportunity for that depth and penetrable quality in the penumbra which he liked so much, and which he could not possibly have attained in anything like the same degree either in fresco, tempera, or water-colour. The enormous importance of technical matters in the fine arts is shown by this, that the mention of Rembrandt and fresco in the same sentence at once awakens a sense of incongruity so striking as to be almost ludicrous. Had he been compelled to paint in fresco and to engrave with a burin the artist whom we know as Rembrandt would have been lost to us. His name, if known at all, would have had other associations, but the chances are that, with means of expression so opposed to his idiosyncrasy, he would have remained permanenter obscure.*

* Rembrandt's system of light and colour was extremely arbitrary and it will not bear the kind of criticism which refers everything to ture, but it was cunning to the last degree with reference to those rest

Italian painting proceeded from the first on principles very different from those we have just been studying. The early Italian artists passed from tempera to oil whilst preserving the habits acquired in tempera. They painted very carefully and equally, filling up delicate outlines with much accuracy, and even down to a later period, when the art of painting is popularly supposed to have reached its full maturity, they retained in a great measure the habits which belong to its infancy. I have no hesitation in saying that, from the technical point of view, Raphael himself never came to maturity as a painter. His early manner, as everybody knows, was extremely primitive, but even his later manner, his latest, was only primitive painting developed a little farther in the same direction, with more accomplished manual skill. Raphael advanced with great rapidity as a draughtsman, and brought the art of drawing, as he understood it, to a sudden maturity, but his painting did not advance at the same rate, and the only rational account of him is that he was a draughtsman who painted his drawings delicately. All early Italian painting, and very much that is not called early, is only painted drawing, in which the design is coloured exactly on the same principle as the coloured woodcuts made at Epinal for children, though of course with far superior skill. If the evil of this were limited to the work done it would matter but little, for painted drawing is very pleasing when it is good in its own way ; but unluckily, the great Italian names have over-awed

often quite independent of natural truth, that the artist himself desired. Without being a truthful colourist he was an extremely skilful one. Paul Chalmers used to say, 'People have not half recognised the wonderful colour of Rembrandt. See how he shoots orange through his reds where the light strikes, and interfuses yellows and greens through each other until you cannot tell what the colour is.' This principle of representing natural colour by the play of several different strong hues put side by side was at one time very much adopted by the Scottish school, and sometimes with good effect, but it is a dangerous principle to act upon, and such work ought to be done instinctively, in the heat of inspiration, or not at all. It cannot be plotted and schemed for.

modern critics and prevented them from recognising a distinction that stares them in the face.

The painted drawing of the Italian masters has none of the characteristics of painting in its full maturity. Instead of having that rich variety of surface that Rubens and Rembrandt appreciated, it is smooth and regular except where small touches stand in relief, as on jewels. The accent of brush-work is simply absent, the artists had not thought of it as a possible force, and although the colours are often bright and arranged in large patches with great care and taste, they are always colours, in the plural, and not colour in that synthetic sense which the real colourists have taught us to attach to the word. The following qualities certainly belong to the best Italian work, such as that of Raphael, Andrea da Solario, and others.

First, exquisitely delicate linear drawing, far more idealised than the Flemish, sharp outlines everywhere united to careful modelling with imperceptible brush-work in flesh, beautiful arrangements of light things and dark things, not so much what we call light and shade as light and dark by local colour. Such shading as there was belonged rather to modelling than to chiaroscuro. As to colour, the treatment of it is very peculiar, and quite independent of natural truth. Suppose that the artist had to deal with a piece of red drapery like the red dress of the Virgin in Raphael's Holy Family in the Louvre. What Raphael actually did was this : He made the red of the dress whiten in the light, as if the light really bleached it where it fell ; the red is not lighted, *it is expelled*. In the shaded parts of the same drapery the red preserves its full chromatic quality without loss from privation of light. So with the blue drapery on which the Child is lying. In the light it is a faded blue, in shade a full blue without any chromatic loss. This is not all there is a landscape distance, with buildings, and the lights upon them are white whilst the buildings themselves are blue in distance ; in nature, a group of buildings sufficiently remote to be turned blue like a mountain certainly would not tak

white lights.* All this colouring is founded upon a false principle, which is that colour may be dealt with like black and white. If you are drawing in charcoal you may omit local colour if you choose (though it is better not to omit it), and then, having made that sacrifice, you may make the light parts of your draperies all white together, like the draperies on marble statues ; but if you are working in colour you cannot properly or legitimately expel colour at will to get a greater gamut of light and dark. This erroneous system of colouring was, in fact, a continuation of the habits of a draughtsman after he had taken up a palette. Unluckily it set a bad example, and the commercial pictures of saints made for the Church of Rome are all coloured on those principles to this day. They are as false in the darks as in the lights, for in nature colours are *not* extinguished in light, but they do really lose chromatic intensity in shadow. They are greyer and duller in places where there is not light enough to see them by.

The painting of Raphael's time was a representation of objects with a clear explanation of their colours, but without regard to visual effect. On a refined and idealised drawing the men of that school carefully mapped out the spaces occupied by the blue sky and the red or yellow piece of drapery, and filled them up to the edges where they met, but the art of that time was in a condition too elementary for the visual synthesis which is understood by the most accomplished moderns. Even in Lionardo da Vinci the art of painting is still in a primitive state. He gave the most painful labour to his pictures, and they were little more than very highly-finished drawings, admirable in form, with most careful modelling, but destitute of a painter's comprehensiveness of sight as of a painter's sleight of hand.

We know how dissatisfied Lionardo always was with his own

* When a city is remote enough to be blue in distance, it does not see lights of any kind, but is flat, lights and shadows being all mingled together. The only exception is the flashing of the sun's rays from glass which may, by accident, give a sparkle somewhere on a skylight.

work ; perhaps the nobility of his genius made him dimly aware that the art of painting ought to be more than mere drawing in oil, however perfect in finish.

Mérimée says that the Roman and Florentine schools always painted upon a monochrome foundation, and mentions pictures by Leonardo and Fra Bartolomeo at Florence which were left in their first stage. They are drawn in line with the brush and shaded with a bituminous brown, as drawings on paper used to be shaded with bistre. In short, it was the combination of line and wash.

This was not the practice of the Venetians, who began with thick colour. Titian's way of painting has come down to us through Boschini, who knew the younger Palma, whose father had received instruction from Titian himself. Boschini says that Titian 'based his pictures with such a mass of colour that it served as a base to build on after.' He also says that red earth was used in the early paintings, besides white, black, and yellow. The red earth was probably what is now called light red, or it may have been Venetian red.* We do not know which yellow is intended, but it is quite possible that it may have been one of the common varieties of yellow ochre, as that would be sufficiently brilliant for a dead colouring in which the brightest red used was only an earth. Readers who understand painting will be struck with the absence of blue ; but black and white, used in cold greys, would do duty for blue in a first painting so far as coldness is concerned, and this absence of brilliant hue in the cold extremity of the scale, as well as in the hot red, can only strengthen the supposition that the yellow was not a brilliant one, as there must always be a certain relation among the colours on a well-ordered palette, and a very bright yellow would have been out of place in this one. From evidence that we have, we may consider it to be ascertain that Titian's first paintings (Boschini speaks of four 'pencilin

* The true Venetian red is said to have been a native ochre. To which we use is artificial.

done in this way) were massive in substantial quantity of pigment, but exceedingly simple in their colouring. When the first stage was completed, Titian laid the canvas aside for several months, and on resuming work upon it amended and corrected all the forms. Then came his long finishing process. He glazed everything. Mérimée said that he did not know a single picture of Titian which was not glazed from one end to the other, even in the highest lights. He also applied opaque colour over and over again, rubbing it on the canvas with his thumb and fingers, which Palma said that in finishing he preferred to his brushes. In this way, by frequent retouches, which were to the solid substance beneath what the down of a peach is to the skin of the fruit, he gradually gave to his works that bloom and perfection of rich surface which they have always preserved till now, unless in those cases where the delicate thin surface applications have been removed by the carelessness of cleaners. This is nearly all we know about Titian's practice. It would have been interesting in the highest degree to know the exact colours that he used, but here the universal carelessness about technical matters which has prevailed since art began reduces us to simple conjecture.

In Titian a certain kind of painting reached its full perfection. His work is not coloured drawing, like that of the Romans and Florentines, but really the expression of a painter who understood the full technical value of his materials. A good Raphael, a good da Vinci, gives us the pleasures of idealised drawing and noble composition, but a fine Titian gives us the pleasure of good painting. The artist himself had a natural faculty for the delight of the eye, as a person gifted with musical genius has for the delight of the ear—he cultivated the gift and complicated this kind of enjoyment to all who are capable of it. A good painting whatever is an expression, not of hard knowledge, but of the eye's delight. Titian's painting is to the occult sense what a rich old wine is to the sense of taste. It appeals very little to the soul or the intellect, but it gratifies, it satisfies, the noblest of our physical senses.

It is very narrow in range of effect, and the effects that it does represent are scarcely natural. Titian supposed a golden twilight for his landscapes and draperies, but he represented his figures, his carnations, as if in the clear, warm light of an interior on a summer afternoon. I mean that you see the faces, arms, and hands, much more plainly than you would see them in nature if the landscapes and draperies were as dark as Titian represents them. He had a perfect right to use this license, by which he gave more brilliance and importance to his flesh, without being obliged to sacrifice the fulness of its colour. He painted on coarse canvases, from preference, because he found that they were very favourable to broken edges (soft at a distance), which he greatly preferred to hard outlines, and also because the coarse threads caught the pigments well when he desired a crumbling surface. He painted flesh over and over again, till the thickness of the colour gave it as much smoothness as he wanted, and it was not his custom to load flesh, but he would load elsewhere (on costume or furniture) in moderation where he felt it to be desirable. Altogether, his painting was abundantly rich in matter, in which it differed very widely from the earlier art. We ought clearly to understand that, notwithstanding the beauty of Titian's colour, his paintings would not have been half so delightful as they are if he had not known the value of rich surfaces.

Correggio avoided hard outlines with great care, going, indeed, to the extreme of softness, so that they are hardly traceable close at hand. In all things he had the conceptions of a painter rather than those of a draughtsman. He did not load his flesh, which is carefully modelled with the brush, but he loaded a little in accessories. He rather liked coarse canvases, but did not care to have them of an excessive degree of coarseness. He went farther than Titian in the study of such and evanescent effect, and approached more nearly to technical conditions of modern painting, though with a degree of manual skill which has not been rivalled in modern ti-

except by Sir Joshua Reynolds. Giorgione was much more substantial than Correggio, but still truly a painter, in the strict sense, like Titian, whom he resembled in some respects, especially in his moderate use of loading.

We have a clear though brief account of the method followed by Paul Veronese. This account comes to us from the painter's own son through Boschini. His way was to paint everything first in middle tint, and on this he touched both lights and darks, leaving the middle tint visible everywhere between them, as it was first prepared. The middle tint was laid in opaque colour. Mérimée affirms that Veronese often worked on canvases primed in tempera, and also that when he did so he began his picture in water-colour. Veronese must have laid his middle tints with uncommon certainty as to hue, if he really always preserved it so carefully as Boschini says he did. The reader will at once perceive how radically different this practice is from that of Titian, and how much greater a degree of tonic accuracy it required in the earlier stages of the work, for Titian was constantly correcting *all* his tones, whereas Veronese, at a certain early stage of the picture, considered the middle tints to be definitely settled. Veronese, in fact, when the picture had reached that stage, would look upon it very much as a sketcher in white and black chalk looks upon his tinted paper, which is to be left visible in many parts, but heightened or deepened wherever light or dark accents may be necessary. It is a most convenient way of painting, and one admirably in harmony with the appearances of nature, where we constantly see lights and darks on middle tint; but there is one practical objection, namely, the extreme difficulty of getting the true middle tint which is required. This involves the necessity of an intellectual process, for the eye of painter, unaided by his mind, would be certainly unequal to task. Ocular imitation would *never* discover the true middle, because without an intellectual caution the eye would be too perplexed by the extreme lights and darks. The intellect

must intervene to perceive the average, just as it is only by an intellectual process that we can ascertain arithmetical averages.

Paul Veronese, like other great Italian masters, was fond of painting on very coarse canvases, on account of the richness of surface which they give when their qualities are made the most of. The Vision of St. Helena, in the National Gallery, engraved by Mr. Stocks for this volume, is on one of the coarsest canvases in the collection. This was especially useful in the drapery which Veronese indicated with broad catching touches. In the face the texture of the canvas is less conspicuous, yet even here it is strongly felt.

It is a question of the greatest interest whether the Italians used varnish in their painting, when actually at work, or whether their pictures were only varnished afterwards. The probability appears to be that they used a sort of pomatum, very like our modern megilp, composed of *oglio cotto* (*huile cuite*, cooked oil), mixed with a certain proportion of gum varnish. The *oglio cotto* has been known in Italy so long that no record of its origin is preserved.* It is simply nut oil, boiled down with as much litharge as it will dissolve, until it resembles the consistency of honey. This is mixed with varnish till it makes a pomatum which will stay on the palette without running. Lanzi says that during the restoration of a picture by Correggio, an analysis was made of his materials, and a conclusion arrived at about his medium to the effect that he employed two-thirds of oil and one of varnish. Mérimée ascertained from certain wrinkles in a picture by Giorgione that he must have employed an oil varnish, as none but an oil varnish would wrinkle. That varnishes were well known in Italy in the sixteenth century is proved by Armenini's book, which gives receipts for making them. Field, however, says that it has been an opinion

* It cannot be the same as the *huile grasse* used by the students of Delaroche, which consisted of linseed oil boiled with litharge, for it is now considered a very dangerous vehicle, as pictures painted with it crack terribly.

eminent judges—and he seems to share the opinion—that the Venetians only employed oils and varnishes as preservatives and defences of their works, and not as vehicles; the vehicle which they are supposed to have used being water with certain additions, probably including borax, which is the true medium between water and oil, and he asserts that ‘portions of their decayed pictures have been readily fluxed by fire into glass.’ These different opinions only show the obscurity of the subject and the remarkable absence of definite information. It is wonderful that so little should be known, but it is the more wonderful since eye-witnesses have positively attempted to give an account of the Venetian methods and stopped short before their tale was fully told, and that neither from inability nor unwillingness to tell all, but simply because they did not foresee what we should care to know about, or else took it for granted that we should be inevitably acquainted with all that belonged to the common practice of the time.

I do not intend to follow Italian art, even from summit to summit, down to the present day, not only from want of space but because painting in Italy has not a continuous history. Imagine some distant region, uninfluenced by European immigration, where a race of men, autochthonous, had reached their own civilisation, their own physical stature and mental development, without the lessons of the foreigner. Suppose that this race, after long ages, had dwindled and fallen away from its high attainment until hardly anything remained to it but a tradition of past greatness—a greatness remembered by tradition and perpetuated by material works, yet no longer adequately understood. Finally, the old civilisation is entirely replaced by a new one introduced by foreigners and practised at first in a rude and vulgar manner by untrained imitators who have forgotten the culture which should have belonged to them by descent and have not yet assimilated that which has come to them by importation. This is the condition of modern painting in Italy. It has nothing to do with the great Italian art of

old. It is as young and raw as anything that is done in the United States of America. It is a fresh importation, like locomotives in Japan, and the great old artists of Italy are as far outside of it, and have as little advice to give about it, as a daimio of the sixteenth century with regard to a Japanese railway.

Of the elder French painters I need not mention those who followed Italian methods, even though they wrought as soundly as Nicolas Poussin. The placid temper of Claude prevented him from acquiring any of that vivacity of handling which we find in Rubens and Rembrandt, and which Frans Hals carried to its extremest limit; but although Claude does not put much life into the touches of his brush, the serenity of his style is generally quite in accordance with the serenity of the natural effects that he preferred. Either by happy chance, or by some law of nature not yet distinctly formulated, it generally so happens that the style of a painter is in unison with his choice of subject. A painter of quiet afternoons will paint quietly, a painter of stormy effects in romantic scenery will display some boldness and even recklessness of manner. Frans Hals, the most vivacious of all painters, seized upon lively, transient action and expression; Clouet, a cool observer, patient and clear-minded, painted people who seem as if nothing could disturb them, and the style of Clouet's brush-work is as deliberate as his sitters. Claude was not so minute, and he did not cling to the drawn line, like the early masters, but he worked in the peace of the unexcited artist, expressing with gentle industry his ideal of a land of beauty. His method — never had painter more of method than he — was to proceed steadily from large spaces to small ones, painting the large first broadly and then the small ones upon them, gradually approaching finish by added work in thin opaque colour and by moderate and prudent glazings. Nothing could be more rational than such a manner of work, and the result is pleasing but not lively. It gives the idea of sustained good health in the artist, but not of fire or passion.

After Rubens, Watteau is technically one of the liveliest of

painters. His work is full of technical charm, and when you analyse it you find that the charm is due to two causes, first his love of evanescence, and secondly the rare skill with which he touched with one tint upon another. Few artists, even amongst colourists, have paid so much attention as Watteau did to the relation between ground-colours left visible and the touches afterwards laid upon them. In his system of work everything was settled by the ground-colours, the upper touches coming afterwards in an inevitable manner like the notes towards the conclusion of a phrase in music. His work was so light that in other hands it would have been flimsy, but there was no flimsiness in Watteau because the thorough soundness of relation between touch and ground prevented it. His ground-colours were semi-transparent and very open in texture, never shut against you like a door, and they were brushed very freely over the first sketch. Then came those touches, firmly yet delicately applied and never disturbed afterwards, which gave animation to the whole, and in which no man ever excelled him.

Velasquez had a greater mind than Watteau, but not a more skilful hand. Nevertheless he, too, was one of the painters of evanescence. His ground-colouring was more substantial than that of the French painter, but his after-work was light and summary in the extreme. Nothing in painting better exemplifies the progress from the infancy to the maturity of art than the way in which painters have dealt with hair. The early Germans tried to paint it in detail with the inevitable result of losing the effect of mass, and of making the individual hairs twenty times as thick as they ought to have been. Such painting as that was neither beautiful nor true. Then came an intermediate state of things, when masses were represented in the lump but hairs were represented separately at the ends, the masses being like lumps of black modelling wax and the hairs like entangled threads. Finally, as painting reached maturity, it was perceived that the individual hairs were too small to be painted and that the masses were quite different in quality from

everything else in nature, that the light-and-shade on them, and in them, was as peculiar as the light-and-shade of clouds, yet of a different kind, and that they could not be dealt with like other substances. Velasquez carried these ideas into admirable practice, and in him the art reached its full maturity. Nothing could be more simple than his brush-work or his colouring, but it was the simplicity of perfect accomplishment. There is no clinging to a hard outline in his work, no childish insistence on trifling details ; he gives you the dark eye, the clear complexion, the bloom on the cheek, the sheen and shadow on the soft hair, the rich quaint dress, yet all without tiresome amplification.

I have several times had occasion, in the course of this chapter, to speak of what may be called 'painted drawing,' and to contrast it with the art which in the strictest sense is *painting*. I do not know anything which deserves the name of painting more entirely and decidedly than the work of Velasquez at his best ; I mean such work as his portrait of Philip IV. in our National Gallery, or that lovely child-portrait in the Louvre, the Infanta Margaret. The most finished performance of Raphael, the Garvagh Raphael, for example, in the National Gallery, with its porcelain flesh, its hard outlines, its bright yet commonplace colours, is quite young and immature painting in comparison.

Here, for the present, we must pause in our examination of actual performance in painting, because we are approaching the modern development of the art, and to understand that development it is absolutely necessary that we should know something about the materials. Even the old masters themselves cannot be understood without a knowledge of matter — of pigments, canvases, varnishes — but it was possible without entering much into these details to give some idea of the early progress of the art so far as execution was concerned. For the sake of clearness I now propose to recapitulate the chief points which have been touched upon, only too cursorily, in this chapter.

1. Oil-varnish painting began with varnished tempera pictures which were enriched in colour by transparent tints mixed

the varnish. The next step was to reject tempera, and to shade a delicate drawing with transparent brown, leaving the lights either white or very thinly glazed with a pale brown shade. On this, when dry, the artist carefully painted in colour, with varnish for a medium, and he kept his painting very thin in the lights to preserve brightness there from the white gesso of the ground. This kind of painting may be associated with the name of the brothers Van Eyck. It is brilliant, and lasts long, but it is a primitive method.

2. Afterwards the shaded parts of the monochrome were kept thin and little painted upon, but the light parts were painted upon freely in thick opaque colour. This kind of work is brilliant also, and it has the advantage of displaying the energy of the artist in handling, which the first does not. It is associated with the name of Rubens.

3. The brown of a highly-finished, delicate, and transparent monochrome might be so modified by thin paintings in other colours as to be greened, reddened, &c., with very little labour. The brown would be itself a part of some colours by showing through them, and it would support others. This principle is the foundation of much Flemish and Dutch work, and may be remembered in connexion with Teniers.

4. The whole of the canvas might be painted over with a nearly equal thickness of smooth painting on a ground of transparent monochrome, observing a careful drawing in all its lines, and developing careful modelling in the coloured work. This may be associated with the name of Raphael. It is beautiful when combined with beautiful drawing and composition, but it is a primitive kind of painting.

5. The whole of the canvas might be painted with a substantial dead colour in broad masses, omitting all details and elegancies of drawing, and on this dead colour preparation of ber tints the picture might be brought forward gradually by ccessive paintings, richer and richer in colour, and at last it ght be finished with rich glazings and dragging and loading

of thick colour catching on the threads of the coarse canvas. This kind of painting is not immature, it is not a primitive method, not painted drawing, but the art in its ripeness. It is associated with the name of Titian.

6. Especial care might be taken, by an artist who had the rich means just described at his disposal, to avoid hard outlines and flat surfaces, so as to get still farther away from linear or decorative drawing. We find this desire realised in Correggio.

7. All the middle tint in a picture might be painted first in substantial ground-colours, and both lights and darks might be painted afterwards on the middle tint. By this analysis, which divides the work to be done into three main divisions, it would be considerably simplified, and there would be an economy of labour, as the middle tint would remain untouched over a great part of the canvas. The only objection is the difficulty of rightly ascertaining *what* middle tints to use, as they cannot really be seen in nature with the eyes, but must be ascertained by intellectual analysis. It is a very advanced method of painting, and was that of Paul Veronese.

8. A painter in the full maturity of the art might represent objects with an extreme simplicity, and yet, by consummate knowledge, convey a truer idea of their qualities than an inferior artist could with far greater labour and far more abundant detail. We find this learned kind of realism in Velasquez.

9. A painter who worked in a time of very advanced art might find a new charm in the delicacy of his touches on ground-colours carefully prepared to receive them: He might delight the eye by the perfectly harmonious relation between the ground and the touches by which it was not hidden but relieved, and he might awaken interest by the skill and vivacity with which the touches themselves were placed. This, with a special taste for evanescence, would describe the technical qualities of Watteau.

The distinctions marked in the foregoing paragraphs are of importance, because it will be found that the greater part

modern work is derived from one or other of these modes of practice. Some new technical practices have been introduced during the nineteenth century; and when we come to them they shall have the share of attention they deserve, but several good and sound methods of painting have long since reached full maturity, and whoever desires to adopt them, or one of them, will find the whole craft ready to his hand in the practice of some old master.

All painting may be first broadly divided into two categories, the mature and the immature. If the painter follows a finished linear drawing so as to have no freedom with his brush, and if the touches of his brush are without executive expression of their own, his work is immature, whatever may be the beauty of its design or the perfection of its modelling. It may be valuable for different archaeological or even artistic reasons, but it is not *painting* yet, any more than a caterpillar is a butterfly. It is, however, the kind of art which precedes the perfect development of painting.

The mature kinds of painting chiefly interest us now, when the art is old and fully ripe. Rubens, Frans Hals, Titian, Correggio, Veronese, Velasquez, Watteau, are all mature men in art, yet they differ widely from each other. It is not desirable that any of their complete methods of painting should ever be finally discarded, because the variety of idiosyncrasy amongst artists requires some liberty of choice, and it is well that there should be half-a-dozen good systems of painting to choose from. Still, if one were asked whether amongst the seven artists just named there is a choice of greater or less completeness in method, the answer would have to be that Rubens is a slighter painter than Titian, because the shadows in Rubens are more meagre, and en his lights less sustained and mellow. Watteau, again, is a ghter painter than Velasquez, and Veronese is more bound to s outlines than Correggio, so that of these mature painters ere are three who have a richer and fuller maturity than the 'ers.

II. — MATERIALS.

Before passing to an examination of modern methods, we have to examine the materials of oil-painting. First, let us think about the formation of a palette.

All the pigments are usually ground in oil, and kept ready prepared in compressible tubes of thin metal, made without a joint and closed by being pinched with flat pincers at the bottom. These tubes, which are made from discs of soft tin by a very ingenious machine combining the principles of stamping and elongation, are one of the greatest conveniences belonging to the modern practice of art. The old masters had to be content with pots of colour for large pictures, and with bladders for smaller ones, both occasioning much trouble and dirt.

Pigments may be ground with more oil or with less, and the consequence of the difference is very important in its effect on painting, for if too much oil is used in the grinding it is impossible to get that stiff and solid impasto which some modern artists delight in. Some painters always ask for stiffly ground colours. It is generally an advantage to have them, for if the artist finds them inconveniently stiff he can thin them himself with oil, but if they are too thin they cannot be so conveniently thickened. This is done, however, to some extent by spreading the colour on blotting-paper, which drinks up some of the oil.

It is a matter of extreme importance that all the pigments used in painting should be thoroughly well ground. If they are not, they are only fit for large and coarse work. Nobody could possibly paint like Gerard Dow with ill-ground colours, and if there had been no good grinding in the world there would never have been a Meissonier.

Some pigments in their natural state are in such fine impalable powder as not to require much grinding; others are naturally coarse, and require a great deal. The colour-makers get over this difficulty for us, and give us all pigments as nearly as

sible in the same state. Nevertheless, in spite of all they do, there will ever be a difference, and the practical consequence is that the pigments we have to employ will not all behave in the same manner. Some are naturally coarser than others ; some enter well into combinations, and others badly ; some have what is called good body, of which others are almost destitute ; and it is only after long acquaintance that we learn their different peculiarities.

There are great differences of density in pigments, and if there is anything like uniform density in painting, it is because most of the pigments are mixed with white for opaque work, and with some sustaining varnish medium for transparent. Still, even as it is, the unequal density of pigments is an inconvenience.

They are still more unequal in power — I do not mean in apparent strength and intensity, but in the purely material effect of colouring other pigments by mixture. For example, Prussian Blue is a very strong colour, and so is Cadmium Yellow ; that is to say, that a little of these colours will go a long way in mixture with weaker ones, and it is necessary to use them with caution, because they will always be liable to do more than is required. On the other hand, a weak colour, such as Terra Verte, is easily overcome in mixture.

Another great inequality is in the durability of pigments, and this is the most serious objection of all, for different degrees of density or strength affect only the artist, and there are ways of overcoming these inconveniences, but difference of durability concerns the purchaser as well ; and if once a fugitive pigment has been used in a picture the balance of colour in the work is sure to be ultimately destroyed, for the permanent colours will

remain and the fugitive will fly.

There are several very cogent reasons why fugitive pigments should be excluded from the colour-box. It is dishonourable to employ them, because the buyer supposes that he is investing in durable work. The use of them is a kind of suicide on the

part of the artist, because he is thereby ensuring the future destruction of his own performance, and leaving his fame to rest on a ruin. Lastly, the picture into which they have been allowed to enter will not fade away equally, like a *camaieu*, which would only be a half evil, it will be destroyed in places, as if by the ravages of local disease, so that all its harmony will be gone.

These results are as certain as the consequences of blood-poisoning ; yet many artists have been, and many others still are, quite absolutely reckless about the durability of their works, and this is what they say to excuse themselves : They say that in the present condition of society, when industry is divided into special departments, it is not possible for an artist to secure himself against adulteration, and consequently that it is of no avail for him to be particular in the selection of his colours. They have no confidence in their colourmen, and, if they had, they say that there would still be ample reason for distrust, as the colourmen themselves cannot answer for the purity of the materials they purchase. The result is a state of despair about ever finding trustworthy materials, and as despair is proverbially a bad adviser, these artists, who have no desire to be dishonest, and as little to plant destructive agents in their own works, like dynamite in a ship, are doing it daily out of sheer hopelessness, helplessness, and recklessness.

Others are trying hard to find some means of rendering oil-painting a safe and permanent process. To this end three things are necessary — durable pigments, a safe medium, and a prudent use of both. For the pigments and the medium we have to look to chemists, and especially to the Professor of Chemistry at the Royal Academy, whose office it is to place sound and disinterested scientific knowledge within the reach of artists. For the use of materials artists can only refer to the practice of their predecessors, imitating those whose works have lasted, and avoiding dangerous examples.

There is an element of safety in using few colours, because

few may be more thoroughly understood than many. If a palette could be composed of a very few pigments, that we could rely upon, there would be no necessity to try any more hazardous experiments, and the whole question would be settled for ever. Could not this be done? Is there any reason why it should not be done at once?

The answer to these questions is, unluckily, that a simple and a complete palette are not always precisely the same thing, and that it is of no use offering an incomplete palette to painters, because they are sure to complete it in their own way, with the help of the ever-ready colourmen. There is a tendency amongst unpractical writers on art to exalt the merits of simple palettes and common materials, because it gives them an opportunity for speaking contemptuously of modern artists who require brilliant and various colours. Unfortunately, Sir Joshua Reynolds gave some countenance to this sort of criticism, not at all by his practice, as we shall see presently, but by an ill-considered written sentence, in which he spoke favourably of the ancient Greeks for using an extremely limited palette. ‘Another circumstance,’ he says, ‘that tends to prejudice me in favour of their colouring, is the account we have of some of their principal painters using but four colours only. I am convinced the fewer the colours the cleaner will be the effect of those colours, and that four are sufficient to make every combination required.’* There never was a more unpractical observation. It

* Reynolds shared the common opinion, entirely fallacious, that the more pigments we use the more they will get mixed, and he argued in favour of few pigments that ‘two mixed together will not preserve the brightness of either of them single, nor will three be as bright as two.’ The argument is sound enough, but it tells precisely in the opposite direction. The truth is that when few pigments are used they must be mixed to get a variety of tints, whereas when many are used it is so often necessary to mix them, and this is absolutely the best reason having many pigments, as by their help the tints are brighter than tints of three or four pigments ever can be. The necessity for mixing may, however, often be avoided by putting one colour over another instead of mixing the two together, and the result is more brilliant.

may be true in theory, that three primitive colours will generate all others, though men of science are not agreed as to which colours are the primitives ; but in practice, with the materials we have to use, it is not possible to make a complete palette, or anything like one, with four pigments. It is necessary to prove this point before going farther into the subject. The error is continually cropping up. I find it stated in Gilchrist's Life of Etty that he could paint with only four colours : 'with three colours and white — anything approaching to a yellow, a red, and a blue — he could produce a sweetly coloured picture.' From this it was deduced that only inferior artists desired a better furnished palette.

I have no desire to imply that the statements about the ancient Greeks and Etty are in themselves untrue. A picture may be painted with four colours, and if the subject of it is carefully chosen, so as to lie within those limited chromatic means, their narrowness will not be severely felt ; but it is quite untrue that any four pigments known to chemistry 'are sufficient to make any combination required,' or that it is a mark of inferiority in an artist to want more ample materials.

The four pigments used by the Greeks in their pictures are said (on the authority of Pliny) to have been White, Yellow, Athenian Ochre, Red Ochre from Sinope, and Black. This list corresponds very closely with the palette used by Titian for his dead-colour. He, too, used white and black with a red and a yellow. We know that the red was an ochre, and therefore may infer that the yellow would be an ochre also, for harmony. There is, however, a great difference between using an extremely simple palette for a preparatory dead-colour, and the use of the same palette for the whole work of the picture.

The true test of a palette is the imitation of nature. Whatever may be your artistic ability, you will be quite unable, with the palette, just described, to imitate either an orange, a lemon or a rose. Titian himself could not have done it, because it is a material impossibility which no amount of science can o

come. The red and yellow ochres are not bright enough to produce orange, yellow ochre is not pure enough to imitate a lemon, the red of ochre bears no resemblance to that of the rose. And how, with the cold grey of black and white, are you to render the azure of southern skies and waters?

Those who have no practical experience of colouring always answer that everything can be done by oppositions when the artist has full command of his materials. Much, no doubt, can be done by contrast, but not everything. You cannot turn Yellow Ochre into Lemon Yellow, nor Ivory Black into Ultramarine, nor Red Ochre into Rose Madder, by any opposition which the narrow Grecian palette would place at your disposal.

Now let us suppose that, instead of being bound down to the pigments used by the Greeks, we have full liberty to choose pigments of our own. Could we not get all intermediate hues if only we had three primaries and white? The difficulty in practice would be to get anything like the primaries; and, in the first place, we do not exactly know what the primaries are. The common theory is that they are red, yellow, and blue; Maxwell's theory is that they are red, blue, and green; and amongst men of science, who experiment with rays of light, Maxwell's theory has gained ground very rapidly. We will stick to the common theory, however, for the present, because it so happens that it seems to accord better than the other with the powers of mixture belonging to the materials in our possession. We can make green by mingling blue and yellow, but we cannot make yellow at all by mixture, we must get it pure at first, so the old theory, though possibly quite erroneous if considered with reference to absolute truth, is good enough as a guide in practice.

Red, yellow, and blue — but *which* red, *which* yellow, *which* blue? The first thing to be noticed in all scientific treatises on colouring is that the colours in their wheels or triangles are never alike. One man gives rose-colour as the primary, another gives it of carmine, and a third something like the red of a com-

mon soldier's coat. In one diagram the yellow inclines to lemon, in another to orange ; in one the blue is pale, in another very much darker. Amidst this confusion the only certainty appears to be that if we choose any pigments we shall be told that we ought to have chosen others. Here, then, are two proposals : —

1. White, Aureolin, Rose Madder, real Ultramarine.
2. White, Strontian Yellow, Vermilion, Cobalt.

Either of these palettes would have a great advantage in brilliancy over the Grecian, but it would not be practically more complete. They would afford you greens and oranges not to be got out of the Grecian list of pigments, but they would not supply the place of the earth-colours ; they would not give fine dull yellows like the ochres, nor good dull reds, nor rich browns, nor a good black. There are a multitude of sober tints in Rembrandt and Velasquez which these two brilliant palettes would be quite unable to imitate.

The truth is that if we set theory aside and turn to experiment instead, which is our only safe guide in a matter of this kind, we shall be immediately driven to the conclusion that a palette of four pigments can never have sufficient range to cope with the various colouring of nature. The palette *must* be harmonious, to begin with ; there is no escape from that ineluctable necessity ; the colours *must* be such as will form a true chromatic scale of a certain definite kind ; therefore, in a very limited palette the colours select each other by affinity. The lists given above (including the Grecian) are harmonious, but they are not complete. The dull palette could not render the bright colours of nature in flowers and skies, the bright one could not render her fine dull colouring in earth, fur, and flesh. If compelled to choose between the two a colourist would take the old Grecian palette, because with that he would easily trans all nature into half-colour, but with bright pigments only would be painting in crude superlatives exceeding the tem ance of nature.

When full colour is not an object a valuable restricted palette may easily be arranged with five pigments, three to represent (in some measure) the primaries, and white and black. The best selection is the following well-known one :—

Flake White — Yellow Ochre — Cobalt Blue — Light Red — Ivory Black.

With these you cannot paint all things truly, but you can suggest full colour to the mind, and produce works having the same relation to the colouring of Nature that a silver-point drawing has to her light-and-shade.*

After comparing the experience of many artists, and carefully making many experiments in my own laboratory, I have arrived at the conclusion that it is not possible to form a complete palette with less than nine pigments. The elements of such a palette must inevitably be brought together on the following principles, and you will invariably find that all artists who have attempted full colour (including Reynolds himself) have been compelled to act upon these principles. They may be despised and neglected in theory, but they make themselves obeyed in practice.

Taking the pigments as we have them, we cannot do without white. In theory it would answer the same purpose to dilute other colours and make them paler, in practice we require the full body of white to give a substantial appearance to near things and atmosphere to distant ones.

Black is not indispensable in a numerous collection of pigments, but it is valuable in a small one.

We cannot do without two yellows, a dull one and a bright one. Yellow Ochre imposes itself of necessity. Every palette which is intended for general painting and not for some special purpose *must* include a dull yellow earth of some kind. A bright yellow is equally necessary in full colouring because a dull yellow mixed with white only gets lighter and not brighter.

* This very simple palette is excellent for the first painting of a picture. It is quite surprising how much may be done with it.

Yellow Ochre and White Lead will never make the colour of the primrose.

The choice of the bright yellow has always offered some difficulty. Many artists have tried Chrome, but it is now discarded because it blackens. Reynolds used Orpiment, not an eligible colour either, as it has a bad effect on some other colours in mixture, and is itself destroyed by White Lead. Some modern painters have used pale yellow Cadmium (not pale orange), which is powerful and of a good body, but it is dangerous on account of the great temptation to adulterate it with something cheaper and less durable; a dishonest colourman would probably adulterate it with Chrome.* The choice seems to lie between Chromate of Strontia (Strontian Yellow) and Chromate of Baryta (Lemon Yellow). Both these are said by the chemists to be quite trustworthy, and Linton says that the Strontian Yellow is of the true prismatic hue.

Two reds are as necessary as two yellows, but for a different reason. As we have Yellow Ochre already, we can easily imitate the ochrous reds by its help; so it is not a dull red that we want, but there are two entirely distinct families of red which must have representatives. They are represented amongst flowers by the geranium and the rose, in pigments by vermillion and lake. The cochineal lakes, made from the cochineal insect, are fugitive and ought not to be used; the madder lakes are believed to be permanent, and are certainly preferable to the others. Vermilion, like pale Cadmium Yellow, is much exposed to adulteration, but in its pure state is said by Field to be 'perfectly durable and unexceptionable.' † Rose Madder and Vermilion are, therefore, our necessary reds.

* Mr. Holman Hunt employs Cadmium, but is careful to reject pale varieties.

† 'It is true, nevertheless, that vermilions have obtained the disrepute of fading in strong light and of becoming black or dark green and impure air; but colours, like characters, suffer contamination and disrepute from bad association: it has happened, accordingly,

Here I pause to answer a probable objection. Many practical readers may say that they have not found Vermilion to be necessary, and have not often employed it. This is very likely, with a palette supplied on the unrestricted principle with all the red earths, but nobody knows the real utility of Vermilion who has not painted with a limited palette. When you have very few colours it is constantly required for its power of redding ochre, making purples with blue, and neutralising greens. It is chosen in preference to one of the red earths, because in mixture it can supply their place, whilst not one of them can supply its place in the chromatic scale.

With regard to blue, there would be no hesitation if genuine Ultramarine were not so costly. Its place may be supplied by the best artificial ultramarine ; that of Guimet, their original inventor, is said by Mérimée to be absolutely identical in hue with the natural lapis lazuli, but this is not quite strictly accurate, for Guimet's blue inclines too much to violet. The artificial Ultramarine prepared by Messrs. Zuber and Co., of Rixheim, is said by Mr. Linton to have the pure prismatic tint.*

Some painters, especially landscape-painters, would prefer

vermilion which has been rendered lakey or crimson by mixture with lake or carmine, has faded in the light, and that when it has been toned to the scarlet hue by red or orange lead, it has afterwards become blackened in impure air, &c., both of which adulterations were formerly practised, and hence the ill-fame of vermillion both with authors and artists. We therefore repeat that neither light, time, nor foul air effects sensible change in true vermilions ; and that they may be used safely in either water, oil, or fresco, being colours of great chemical permanence, unaffected by other pigments, and among the least soluble of chemical substances.'—FIELD'S *Chromatography*.

* Mr. Wyld rejects French Ultramarine on account of its hue, and Mr. Holman Hunt rejects it from a suspicion about its permanence, as he noticed a chemical change. I used French Ultramarine in early practice, and do not observe any chemical deterioration. The reader will meet with more about this pigment in the course of the chapter. Mr. Alderon excludes French Ultramarine and uses Antwerp blue in its place.

Cobalt to artificial Ultramarine if they were forced to choose a single blue; but if you have a good Ultramarine the qualities of Cobalt may be very closely imitated by mixture. Cobalt inclines to green and Ultramarine to violet; both generally require correction in actual use.

With a blue, a black, and two yellows, we can get many greens, especially as we have two reds by which they can be modified at will; but with the pigments already mentioned we could not get *all* greens. It is therefore necessary to complete our palette by the addition of some strong and sound green made ready to hand. We have it in the Emerald Oxide of Chromium, which is one of the safest known pigments when not adulterated. Field says that it is 'durable both against the action of the sun's light and impure air.' In a restricted palette it becomes of the utmost importance, and is the sheet-anchor of the greens as vermillion is of the reds. A distinguished living landscape-painter says that in his art there are two principles, the red and the green, and that it is chiefly the opposition and interchange of these two which constitute the colour of landscape. It is therefore well for a landscape-painter to see that his palette is strong on these two points.

In theory we ought to be able to get a brown easily out of the pigments already mentioned, but in practice we want a richer and purer brown than we can make, not only for itself, but to modify our sober mixtures and darken our yellow earth. There are several to choose from. Vandyke Brown has often been used in a limited palette, but Cappagh is more to be recommended, being a better drier. Burnt Umber is objectionable because it is often heavy and foul in mixture.

Our limited palette, of nine pigments, now stands as follows: — White — Black — Yellow Ochre — Strontian Yellow — Vermilion — Rose Madder — Ultramarine — Emerald Oxide — Chromium — Cappagh Brown.

Very likely the reader may think that I am insisting needlessly upon the arrangement of a limited palette when it is so eas-

to procure other pigments, and so be rid of this necessity for extreme carefulness in choice. ‘Why take so much trouble to choose a few pigments that will do the work, when by taking plenty we are sure to find what we require amongst them?’

The answer is, that limited palettes are the best instructors in colouring, because they teach us, far better and more effectually than a great number of pigments ever can do, the wonderful effects of mixture. An artist who has used everything that came in his way will find a limited, but well-selected palette, a revelation ; it will teach him, in the clearest way, the uses and values of the few colours that he has, and there can be little doubt that the real reason why the colouring of the old painters is often so masterly is simply because they had very few pigments, and so came to understand them thoroughly. I have said that nobody knows what Vermilion is till he has worked with it on a limited palette ; but I might say as much of every pigment in this little catalogue of nine. The reason is that there are no inactive pigments amongst them ; they all have to work, and the artist watches them at work, helping each other like so many obedient and friendly little fairies, and so he comes to know them, and love them, and esteem them for the wonderful things they do.*

These nine, with wise direction, can do everything ; they form a palette which in its vast scales and unlimited combina-

* I ought to answer, in this place, a very common objection to a limited palette of this kind. It is said that the trouble of mixing must be very great, as almost every tint is a mixed tint. I can assure the reader, both from my own experience and from that of more able artists, that no such trouble is felt in actual practice. In a very short time the artist mixes his tints quite unconsciously, and the advantage of having a palette which is at the same time very limited in the number of pigments, and yet chromatically complete, is that the painter has never to think about the colours he requires, because he knows they are all there. When he has thirty pigments in a box to choose amongst, then he has to think and combine, especially if some of his colours are destructive of each other chemically, as Orpiment is destroyed by White Lead and Emerald Green and Cadmium.

tions is chromatically complete ; but as there are many other valuable and quite trustworthy pigments which may render more useful service, there is no reason for rejecting them, unless you are anxious to put your whole chromatic instrument into a very little box. It would be hard to part for ever with such dear and faithful old friends as the two Siennas. Raw Sienna is a lovely colour in many a combination, useful in many a rich green and quiet gold ; Burnt Sienna is good and sound also, and an excellent drier, yet somewhat dangerous as a temptation to strong autumnal colouring. It is rather provoking to have to choose between artificial Ultramarine and Cobalt, because they are to a certain extent complementary of each other. These additions bring us to the following very valuable palette of twelve pigments : —

White — Ivory Black — Yellow Ochre — Strontian Yellow — Raw Sienna — Burnt Sienna — Vermilion — Rose Madder — Cobalt — artificial Ultramarine — Emerald Oxide of Chromium — Cappagh Brown.

But, as my purpose is to bring the reader gradually forward from simple palettes to complex ones, by adding each time the pigments most immediately desirable after those already mentioned, I now proceed to arrange a palette of eighteen pigments, which leaves us to choose six additional ones.

In the palettes already given we only get orange by mixture. It may occasionally be a convenience to have it ready. Orange Cadmium is an excellent pigment in itself, of good 'body, and considered to be durable, but in the hands of imprudent colourists it is dangerous on account of its great strength, as it easily overwhelms other colours in mixture and spoils tints like an infection. Light Red has hitherto been excluded only because its effects are got so easily when you have Yellow Ochre, Vermilion, and a Brown ; but it is an excellent old pigment, must of course be admitted in a box of eighteen. We already two blues, Cobalt and artificial Ultramarine, but then a lovely grey blue, of unquestionable permanence, which

be admitted now, the valuable Ultramarine Ashes, made from the refuse of lapis lazuli. We had Rose Madder, and may now add Brown Madder, which was a pet colour of Field's, who said, 'It is of a pure, rich, transparent, and deep russet colour ; of a true middle hue between orange and purple ; not subject to change by the action of light, impure air, time, or mixture of other pigments.' Terre Verte is a perfectly safe natural green ochre, holding the same place amongst greens that the yellow and red ochres do amongst other colours, but it has far less body than they have, and can more easily be dispensed with. However, in a well-supplied colour-box it is a valuable addition, provided that it be the real thing and not some coppery substitute. It has been hard to keep out Raw Umber so long — one of the most delicate of all the earths — 'lovely Raw Umber,' as Samuel Palmer used to call it. So now we have our box of eighteen pigments constituted as follows : —

White — Ivory Black — Yellow Ochre — Strontian Yellow — Orange Cadmium — Raw Sienna — Burnt Sienna — Light Red — Vermilion — Rose Madder — Madder Brown — Cobalt — artificial Ultramarine — Ultramarine Ashes — Emerald Oxide of Chromium — Terre Verte — Raw Umber — Cappagh Brown.

If, beyond this, a painter desires to go up to twenty-four pigments he can still do so with perfect safety. Strontian Yellow is so near to Lemon Yellow in hue that it has not been thought worth while to include Lemon Yellow yet, but there is not the slightest objection to its use, so a pale kind may be taken, to differ from Strontian as much as possible. We have not yet included the pigment called Venetian Red, a preparation from sulphate of iron, permanent and useful. We may admit a third preparation of madder, Deep Madder. If we care to have another green, there is Cobalt Green, provided that it is got of a honest colourman, as it can be imitated by unsafe mixtures. Real Cobalt Green is 'an original pigment prepared immediately from cobalt with addition of oxide of iron or zinc, of a rare but not very powerful green colour, and durable in both

water and oil, in the latter of which it dries well.' So says Field, and Linton includes this green amongst permanent colours. We may now indulge in the luxury of a second Emerald Oxide of Chromium, darker than the other, but having the same chemical qualities ; and, finally, we may admit Burnt Umber, which is often good as a basis to work upon, and very available in mixture (in small quantities) with some transparent pigments and the opaque earths, but quarrelsome with white, and liable to impart great heaviness to a picture if used injudiciously. Sound and durable as Burnt Umber is from the chemical point of view, it is a dangerous colour chromatically, and has done great harm, especially in the French school.

Our palette or box of twenty-four pigments is now made up, and stands as follows : —

White — Ivory Black — Yellow Ochre — Strontian Yellow — Pale Lemon Yellow — Orange Cadmium — Raw Sienna — Burnt Sienna — Light Red — Venetian Red — Vermilion — Rose Madder — Madder Brown — Deep Madder — Cobalt Blue — artificial Ultramarine — Ultramarine Ashes — Cobalt Green — Light Emerald Oxide of Chromium — Dark Emerald Oxide of Chromium — Terre Verte — Raw Umber — Burnt Umber — Capagh Brown.

All these pigments are safe if unadulterated, and the palettes or boxes are arranged in sequence, so as to take up the most desirable pigments after those mentioned in the shorter preceding list. The reader may, however, be surprised by some omissions. He may ask why such a well-known pigment as Naples Yellow has not been mentioned. It is rejected by Linton as being 'readily affected by sulphuretted hydrogen gas, by light, and by moist iron.' Field forbids us to touch Naples Yellow with a steel palette knife, which is a practical inconvenience, and he says that it is not to be relied upon in practice if used in heterogeneous tints and mixtures. He only recommends it if used pure or with white lead. These objections are sufficiently serious, but there is another — the extreme fac-

with which what we call Naples Yellow is imitated or adulterated. The results of strict chemical testing have been eloquent enough in this respect, and I certainly would not recommend any one to use a so-called Naples Yellow until a competent analyst had satisfied him that it was the real thing. It is not an indispensable pigment, for with White, Strontian, and Yellow Ochre, you are quite independent of it. Several other tempting yellows are easily injured by light or impure air. Orpiment is injured by combination with white lead, and Patent Yellow by gas. We should adopt a good transparent yellow with great pleasure, as it is a desideratum, but the old Yellow Lakes are fugitive, and it appears now that Yellow Madder is not to be relied upon. Aureolin has been offered as a substitute, a delightful pigment to use, but too recent an introduction (in this year, 1881) for me to be able to recommend it confidently. It is a great pity that Indian Yellow should be fugitive in oil, but so it is, to an extreme degree.

Of reds not mentioned in my lists, I may say that Red Lead is rejected because it fades in mixture with white lead, but it might be used pure occasionally in those very rare occurrences where its bright hue might be useful in small quantities. The cochineal lakes are all rejected together, without hesitation.

It is hard to have to reject Prussian Blue, because it is such a delightfully rich colour. 'It is of a deep and powerful blue colour,' says Field, 'of vast body and considerable transparency, and forms tints of much beauty with white lead, though they are by no means equal in purity and brilliancy to those of cobalt and ultramarine.' Besides these merits, Prussian Blue has two others not to be despised: it is very cheap, and an excellent drier, but it does not last. Field says that it 'has the singular property of fluctuating, or of going and coming, under changes of circumstances, which property it owes to the action and reaction by which it acquires and relinquishes oxygen alternately, and time has a neutralising tendency upon colour.' Linton rejects it decidedly as 'not to be depended

upon.' Indigo is another tempting blue, powerful and pleasant, but fugitive and quite inadmissible. Blue Ochre would be valuable as a quiet blue to go with the other ochres, but it is too rare for the ordinary purposes of commerce.

The copper greens are rejected as not permanent, still Mérimée thinks that the durability of Malachite Green is sufficiently proved by the permanence of colour in objects made of the malachite stone, which have lasted for many centuries without fading. This does not quite prove the point, because the same substance reduced to powder and mixed with oil might change in consequence of minute division and mixture. Linton says that Malachite Green 'becomes greener and darker in oil,' and rejects it accordingly. If this darkening is only moderate, in degree the evil is not great, as pictures darken all over; but this green, though pleasant to use, is not indispensable, as its hue is easily imitated with the pigments already at our disposal. It is much to be regretted that Sap Green, which is used in water-colour, should not be available in oil, but it is extremely fugitive, and not to be thought of.

There are plenty of good browns to choose from, and if the reader prefers it there is no reason why he should not use Cassel Earth instead of Cappagh. Vandyke Brown is good, but it dries slowly, and in drying becomes very dull and opaque. Asphaltum is quite permanent chromatically, and a most tempting pigment for its charming golden colour when used thinly, and for its fine transparency in greater depths. It is a natural product, a sort of 'mineral pitch or resin found floating on the Dead Sea'; and it would have been happy for art if it had ever remained there. Horace Vernet was very fond of asphaltum, and you may see it to this day trickling down his canvases like treacle.* In other men's pictures it often shows itself by ga fissures an eighth of an inch wide, sometimes much wider.

* I have removed undried asphaltum with a pocket-handkerchief a picture by Horace Vernet more than twenty years after the picture painted.

large works where the pigments have been laid on thickly, and the judicious reader does not need to be told that this peculiar *craquelle* neither improves the colouring of a picture nor its drawing. Notwithstanding these well-known consequences, the attraction of asphaltum is so great that men who have once addicted themselves to it can hardly ever be persuaded to leave it off. It is like opium-eating, or chewing tobacco, a personal vice indulged in for a soothing pleasure. The victim of asphaltum desires the transient happiness of rich and comfortable tones, over which his own eyes may gloat whilst he is at work, and from which his own mind may receive a selfish, temporary consolation, careless of the wreck to come.

The reader may have noticed that in the lists of pigments hitherto given in this chapter, white is mentioned simply, without any indication of its chemical composition. I desired to reserve the question about the choice of a white until the last, because it cannot be so briefly disposed of as the other materials. Oil-painting depends upon white for its appearance of solidity, for that vigorous relief which makes oil-painting the most substantial of all the graphic arts. This quality, powerful as it is, might be sacrificed if too dearly purchased, and a flatter, flimsier kind of painting accepted in its place ; but solidity is not the only quality that we owe to the presence of white. In landscape it stands for light and atmosphere, and though we might perhaps be content to give up the substantial appearance of a rock or a tree-trunk, we cannot sacrifice the brightness of the sky and the remoteness of the distant horizon. I could give the name of a successful living painter of the figure who rejected white absolutely many years ago, and has done without it ever since ; but I never heard of a landscape-painter who did without it.

So far as pleasantness in use is concerned white lead is perfect.* The purity of its appearance, its fine strong body,

* White lead, or ceruse, and other white oxides of lead, under the various denominations of *London* and *Nottingham Whites*, &c., *Flake*

its power of drying, and the readiness with which it enters into combination with so many other pigments, make it delightful to artists. Unfortunately, it has one fault, it is not really permanent *as white*, it turns to something else and then remains permanently in its spoiled condition. It is classed amongst objectionable colours by Linton, who says that it is blackened by the gases which 'in a greater or less degree are common to most domestic atmospheres,' and that 'if oil be used in excess, the picture will degrade to a yellow or foxy hue ; but when the white lead is not overcharged with oil its deoxidation becomes more evident, the colour it assumes being that approximating to metallic lead itself.' Mr. Twopeny, an amateur landscape-painter of remarkable ability, who knew much more about materials than the majority of professional artists, and who attached especial importance to light and atmosphere in landscape, rejected all the white leads without hesitation. 'The changes of white lead and linseed oil,' Mr. Twopeny wrote in the *Fine Arts Quarterly Review*, 'are rapid and inevitable. A foul tawny yellow quickly overspreads the work, utterly destructive of delicacy and freshness in skies, distant mountains, water, &c. Let it not be supposed that we are adopting any hasty prejudice against white lead and linseed oil derived merely from some misuse of them. They have always been fatal to these essentials of landscape.' Mr. Twopeny himself employed a kind of white invented by Mr. Wilkins, which he believed would be permanent, but I am not able to give its chemical composition, and only know that its extreme slowness as a drier prevented its adoption by artists.

Certain precautions against the changing of the lead whites are recommended to painters, but I do not repeat them here, from a settled conviction that no painter in the heat of succ

*White, Crems or Creminitz White, Roman and Venetian Whites, b*d'Argent* or Silver White, Sulphate of lead, Antwerp White, &c.* The heaviest and whitest of these are the best, and in point of colour body are superior to all other whites. — FIELD's *Chromatography*.

ful work will ever be persuaded to adopt an irksome precaution for a scientific reason. The precaution should be taken earlier, when pigments are chosen.

Zinc White has the reputation of being 'the only permanent white of any value to the artist.' There are two other permanent whites, made from barya and strontia, but they have not body enough, and Zinc White itself is so inferior to Flake White in this respect that few artists can be persuaded to employ it, whilst those who do so for a while from conscientious motives generally abandon it afterwards.* Simply as a matter of duty, and not with any hope of being listened to, I must say that landscape-painters ought to employ Zinc White exclusively.† If painters of the figure use Flake White the consequences are less to be dreaded in their works, but they should warm their white and give it oil enough, as it is better for it to turn yellow than to blacken.

Few things better show the conservative effect of oils and varnishes than the possibility of using the whites of lead at all. They cannot be employed in water-colour, because they turn black, nor in fresco, pastel, or distemper. It is, however, always necessary to remember that the protecting power of oils and varnishes diminishes with time, that they get thinner and thinner, and that unless judiciously renewed they are not to be relied upon for ever.‡

* In the year 1852 Mr. Holman Hunt painted a picture entirely in Zinc White, which stood perfectly so far as purity was concerned, but it became much more transparent as it dried farther in course of time, so that the outline showed through in many places. Mr. Hunt abandoned Zinc White because it did not dry fast enough for further work to be added without danger until several weeks had elapsed. Mr. Calderon used Zinc White for one picture, 'The Young Lord Hamlet,' but its blue, thin quality was more than he could put up with, so he never used it again.

† Supposing that it really is Zinc White, and is not adulterated with Carbonate of Lead.

‡ There is a curious proof of the effect of the sun on varnish in the room where I am writing. A piece of carved oak furniture is so placed that one side of it is often in full sunshine and the other generally in

I have not space to go into any questions concerning the manufacture of oils and varnishes, and therefore must leave the reader to consult specialists on that subject. Unfortunately, the durability of a picture depends in a great measure upon the quality of the raw materials from which its oils and varnishes were made. Some English artists, amongst whom Mr. Holman Hunt has been the most active, are making a serious effort to procure quite trustworthy materials of all kinds, and this ought not to be impossible, with the advanced chemical knowledge of modern times. The Professor of Chemistry at the Royal Academy is in a position to render great services, if artists would only listen to him, but many of them unluckily are mortals of the careless kind, indifferent to everything but present wealth and reputation.

All that need be said here is, that the painters who have made it a kind of virtue to use only linseed oil, have not much historic precedent in their favour. They are, of course, quite at liberty to use oil by itself if they prefer it, but the technical history of the art gives great importance to varnish, and that not merely as a final protection, but in the actual work of painting. There is no virtue or vice in the matter, except just so far as the appearance of the finished work, or its durability, is affected by the medium employed. A few very simple data are the result of common experience :—

1. If a medium that dries fast is used in a second painting over a first painting done with a medium that dries slowly, and if the first painting is not *quite* dry, the picture will crack.*

shade. It was varnished about twenty years ago with an oleaginous solution of copal. This has now entirely disappeared, having been as effectually removed by the sun as it would have been by some powerful detergent, but the other side has retained its varnish well.

* Besides this there are varnishes that *contract* in drying more than others. The tremendous contractile force of gum arabic is well known as may be seen in japanned water-colour boxes, the insides of which are lined with a sort of white enamel which peels off provokingly when it is used upon it. So if you varnish a picture with common glue it

2. Whatever the medium employed, there is always a great difference between real and apparent drying.
3. It is desirable, for safety, that the same medium should be employed as far as possible throughout.
4. The safest systems of painting are those by which the canvas is evenly covered in the earlier processes, whether thinly or in more body, reserving inequality of thickness for the latest stages.
5. If the pigments are diluted with a medium, it is a precaution for safety to dilute them equally or nearly so, and not to have some touches of the brush rich in varnish and others dry.
6. The admission of water-colour, tempura, wax, or anything equally foreign to oil-painting, must always be attended with risk, and unless managed with great prudence is almost certainly destructive.
7. Thin applications of pigment dry the most thoroughly, and after them come thick applications with deep brush-marks, because these let the air well into the depths of the paint. The most dangerous applications of pigment are those which are at the same time heavy in matter and smooth on the surface, like plasterings with the palette knife. These skin over externally long before they are dry inside, and the skin retards the drying afterwards.

tear the paint everywhere. Reynolds began a picture with wax and finished it with a mixture of wax and copaiva, the second painting being more contractile than the first the picture immediately cracked. In 1772 he painted his own portrait, and began with water and gum dragon, then varnished with egg after Venice turpentine. Beechey said, 'His egg varnish *alone* would in a short time tear any picture to pieces if treated with such materials as he made use of.' In October, 1772, Reynolds says that the portrait of Miss Kirk was begun with gum and icting, then waxed, then egged, then varnished, and finally retouched on that. The drapery in the portrait of Mrs. Sheridan was first painted in oil, then in wax without oil, then in oil and wax; so 'it leaves the vas in masses,' according to Sir W. Beechey.

A few remarks on panels and canvases may close this part of the subject.

Different woods have been used for panels, the favourites being oak for the old masters and mahogany for the moderns. It is always a mistake to use panel for pictures of considerable size, and for small ones millboard affords quite as pleasant a surface, whilst it is more durable. Canvas is the material most commonly employed, and, on the whole, the best, for although it does not last for ever, it can be intentionally destroyed when it has become rotten, without the slightest injury to the picture, which is then mounted on a fresh canvas and begins a new lease of existence.

Canvases prepared for oil-painting are of all degrees of coarseness. In some the threads are so absolutely hidden beneath an application of gesso that the surface is like that of a panel; in others a tissue of comparatively fine texture is so thinly covered as to leave a catching surface, with what artists expressively call a 'tooth' in it; in others, again, the threads are coarse and strong, and lightly covered at the same time, so that the 'tooth' is very powerful and catches all brush-work on its ridges that is not intentionally driven into its interstices. The grandest painters who ever lived have delighted in these coarse canvases, and with reason, because they make a hard precision almost impossible, and naturally encourage a rich style of painting. Some contemporary painters have a double thickness of canvas (two canvases on the same stretching-frame) for the better protection, against damp and accident, of that which receives the painting; and one artist protects the back of his canvases with wood.

Millboards are employed in England for sketching from nature, but French landscape-painters now very generally little thin boards of deal or poplar, which are left of the natural colour of the wood. If the bare wood is found to be too absent this can easily be corrected by a coat of size. The advantage of these is that any country joiner can make them.

In the spring of 1880 I hit upon a little device for shortening the process of sketching in oil from nature which I have found practically useful. After dead-colouring the subject with rather thick opaque pigments, as if in preparation for a picture, I take a sheet of the thinnest 'moist' gossamer paper manufactured by Messrs. Field and Tuer for manifold writing, and lay it upon the sketch, flattening it gently with the finger. The gossamer paper is so transparent that the whole of the dead-colouring shows through it perfectly, and the sketch may be proceeded with at once (as if the dead-colouring were already quite dry) and finished at a single sitting. This process is really more rapid than water-colour, as there is no occasion to wait even the length of time necessary for the drying of a wash. The gossamer paper has to be bathed in turpentine for a short time before its application, to prevent subsequent cockling, which would occur otherwise from the absorption of oil from the dead-colouring. My practice is to leave the paper steeping in a light metal tray whilst I am laying the ground-colour, so that the paper is ready when required. When the second painting is dry a coat of varnish removes the very slight degree of opacity remaining in the paper, which becomes invisible, and cannot be detected by any one not aware of the nature of the process. It is necessary to paint, in the first instance, upon a smooth and stiff surface, such as that of millboard or panel. The process is particularly useful for skies with few clouds, the sky itself being painted directly on the millboard, and the clouds added at once on the surface of the gossamer paper, of course without the slightest disturbance of the colour beneath. In landscape, for the sake of greater expedition, the details may be drawn with a lead-pencil on the paper and coloured at once in transparent tints with varnish. On this glaze the touches for high lights, accents, and character, may be laid firmly in opaque colour and not disturbed afterwards. This gives practically the effect of finished paintings without waiting at all for drying. The sketch

will dry afterwards thoroughly in the house, notwithstanding the gossamer paper.*

It can hardly be needful that I should occupy space in explaining the common technical terms, such as 'loading,' 'glazing,' 'scumbling,' and 'impasto.' *Loading* and *glazing* we have used already, but it may be well to define their sense exactly. *Loading* is the use of opaque colour in heavy masses which actually protrude from the canvas and themselves catch the light as the mountains do on the moon. Unluckily, at the same time that every lump of paint has its own light it throws its own shadow, and the consequence is that a loaded picture, if hung in some situations, is liable to appear entirely different from anything that the artist ever intended. Mr. Wyld tells a story of a picture by him, entitled 'Venice at Sunrise,' which was painted in a studio where the light fell at an angle of forty-five degrees. Horace Vernet came to see it whilst still on the easel, and expressed hearty approval, so when it was sent to the Salon there seemed to be good reasons for expecting that the picture would do credit to its author. When he saw it there, however, the effect upon his mind was horror and consternation! It had been placed in a narrow gallery with a nearly perpendicular light, and the water under the sun had been heavily loaded to give the effect of light and glitter, an effect attained in the studio, but in the public gallery every streak of paint cast its own shadow below, and the picture looked like a ploughed field. Vernet then remarked that the appearance of light should be got *by quality of tone and not by quantity of paint.*

There is a vulgar error about *glazing* which ought to be dispelled. Everybody except artists believes that it consists in

* This process is particularly useful for working in bad climates; several sittings are not to be counted upon. I wish I had known of it ago in the Highlands of Scotland, when struggling against a climate which is at the same time the most interesting to an artist for the magnitude and variety of its effects and the most tormenting for its frequent interruption of his work.

making a picture look shiny. The word is not used for that, but because a glaze produces the effect of a piece of stained glass by altering the colour of what lies beneath. This is done by mixing a transparent pigment with a medium of oil or varnish and then applying it with a brush. Some artists, who pride themselves on a sort of technical asceticism, reject glazing as a vicious indulgence, and seriously discountenance it. They are quite at liberty to exclude glazing from their own work, for it is not an obligation on any one, but the practice is perfectly legitimate if the colours employed are permanent. When Reynolds found that the ancients knew something about glazing they rose greatly in his esteem. All the great colourists have been fond of glazing, and some of them, including Titian, have used it abundantly.

Glazing is more generally available in figure-pictures than in landscapes, because it spoils the effect of distance by taking away atmosphere. It is most useful of all in dark figure-pictures, such as the portraits of Rembrandt, where great depth, that you can see into, is required. In landscape it is of little use in skies and distances, but is often employed with great effect in fore-grounds, in foliage especially. It was used with great force by Linnell and by Theodore Rousseau in forest scenery. Autumnal forests might, no doubt, be painted without glazing, but they would probably be crude, whereas with its help the glory of their colour may be offered without offence. The depth of the dark hollows under foliage, where the shadows hide themselves from the hot sun, and the transparency of green leaves and grass which have the sunshine in their very substance, are given quite well by glazing, and cannot be imitated at all in opaque colour, though of course they may be learnedly and observantly inter-
ted.

So with the transparency of near water, such as pools mountain streams, a very able painter can suggest it to the ad without a glaze, but glazing allows him to give the very nsparence itself. There is another great technical advantage the use of glazing, which is, that it allows a strong contrast

between the parts of a picture where it is freely employed and those where it is employed sparingly or not at all — differences which require skill and judgment in the artist, as by their excess they may destroy the harmony of the picture, but which place great resources at his disposal.

Scumbling is painting in opaque colours, but so thin that they become semi-transparent. In French books on painting the word *glacis* is sometimes carelessly used for both, and the distinction is not always observed in England, probably because 'scumbling' sounds too technical and uncouth. It is, in fact, a term employed exclusively by artists, and the general public is not aware that the process exists ; but who ever desires to possess clear and accurate notions about painting should be on his guard against this lack of information, and should especially avoid the vulgar error of confounding glazing and scumbling together. They are, in fact, opposite processes. Scumbling gives atmosphere, and glazing takes it away. It follows that scumbling is of especial use for skies and distances in landscape, but it is also employed with great delicacy in painting the figure, towards the last, when the drawing and modelling are there already, but a certain bloom of surface is still required. The later processes of Titian included scumbling on the flesh. It can only be applied with success on tolerably smooth surfaces, consequently if ground colours are to be scumbled over they ought not to be full of strong and deep brush-marks. If they are rough they generally have to be scraped down.

A very able landscape-painter told me that he had always found it quite impossible to obtain the quality of skies without repeated scummings. The same is probably true of distant mountains. The danger of many scummings is that they may block up the picture and produce opacity.

Impasto is the application of thick and opaque pigments diluted with any medium except the oil they are ground in, not too much of that. It differs from loading in being prominent and in covering a larger surface. Impasto would

be felt as such if it were smooth and uniform all over the picture, as in that case nobody would be aware of its existence. It should be applied with strong brushes and in a manly and decided manner. It has been used with great skill, and abused with great effrontery, in the modern French school during the second half of the nineteenth century, but the abuse of it ought not to make us blind to its true value. The great uses of it are in giving an appearance of solidity and in favouring vigorous executive expression. In small pictures it is seldom necessary ; they may be painted smoothly, with plenty of oil or varnish, and little injury will result from the mere smoothness if only the finishing touches are laid decidedly in their places ; but in paintings of considerable size it is difficult, if not impossible, to give the impression of adequate power without impasto—I mean that, without it, the painter does not seem equal to work on a large scale. The attempt has been made over and over again—by David, by Benjamin West, and many others, but however carefully they rounded women's arms and reddened their cheeks, however elaborately they developed the muscles of their men, the work itself, the actual performance, seemed as if it had no stamina. The reason is that impasto, more than anything else, retains the combined impress of physical and mental force.

All these varieties of technical work affect mental expression. I may even go further, and affirm that the mere choice of a medium — of linseed oil, varnish, megilp, or turpentine — will determine, in a great measure, the habits of the artist and the direction of his thoughts. Oil inclines men to high finish and quiet, thoughtful performance ; pure varnish to rapid and brilliant sketching, which catches at sparkle, and texture, and all kinds of accent, but gives less attention to modelling ; megilp invites to rich glazing, and consequently leads to the preference, in nature, of those appearances which are best interpreted by glazing. Lastly, turpentine carries the artist's thoughts out of what is generally called oil-painting altogether, and leads him to

prefer the dead surfaces and moderate depths that belong to fresco.

'Oil-painting,' by which we understand any kind of painting of which the pigments are originally ground in oil, is, in fact, of all the arts in colour, the one which favours the greatest variety of mental expression, and this is the reason why it is the art most likely to be pursued extensively in the future, since the more various the nationalities and the idiosyncrasies of the men who seek an expression in the fine arts the more will they be likely to adopt a kind of painting which offers a special facility to each.

III.—PRACTICE OF SOME MODERN PAINTERS.

I propose, in the third and concluding section of this chapter, to offer some explanation of the technical methods of modern painters in oil, beginning with Reynolds, and including some eminent artists who are still living amongst us and who have been good enough to communicate to me the details of their practice.*

It is remarkable that, although Reynolds was one of the finest colourists of modern times, he should have reserved the colouring of a picture in a great measure for its latest stages. Almost all our contemporaries begin to construct their colour from the very first, laying foundations for it in decided tints. Reynolds painted first in black and white, or in black and white with a little red, making, in fact, nothing but a shaded drawing in oil. This he coloured afterwards by means of scumbling and glazing. The paintings of Reynolds are therefore really coloured drawings.

* Some paragraphs in this part of the chapter are from the Technical Notes which I contributed to the *Portfolio* in the years 1875 and 1876, but, of course, abridged and re-written, so as to be not more diffuse than the rest of the matter in this volume.

ings ; * and it is remarkable that they should be so, considering that he was at the same time a colourist and a painter of very great manual skill.

He generally began by painting in light and shade with blue-black and white, or lake, blue-black, and white. He admitted blue occasionally into a first painting, the pigment used being ultramarine, and occasionally he admitted vermillion ; but the proof that he did not consider his first painting to be in colour is that he omitted the essential element of yellow. On the 22nd of June, 1770, he being then forty-seven years old, Reynolds says, in his own Italian, 'I am established in my method of painting. The first and second paintings are with oil or copaiva † (for a medium), the colours being only black, ultramarine, and white.' Then he repeats, 'The second painting is the same.' Next he explains the finishing : 'The last painting is with yellow ochre, lake, black, and ultramarine and without white, retouched with a little white and the other colours.' According to this description of his method, Reynolds excluded both red and yellow till the last.‡

We have here the central principle of the method adopted by Sir Joshua, but there were frequent variations in minor matters. Sometimes he would get his tints by glazing, and at other times by scumbling. He used very few colours at once, generally only one colour with white. Thus, when his picture was in a sufficiently advanced state to be coloured, he would scumble it at one time with ultramarine and white, at another with orpiment and white, or yellow ochre and white, or vermillion and white, or else carmine and white. Vermilion he sometimes

* Not, however, of the old linear kind. The monochromes of Reynolds are paintings without colour, but with a good deal of modelling and light and shade.

† Copaiava is a Brazilian balsam used in medicine.

‡ Sir William Beechey believed this to be the most approved method of Reynolds. Haydon, who was not a bad judge of technical matters, in the brief note, 'Fine proceeding,' and approves Beechey's note on subject with the word 'Excellent.'

used by itself, thinly, as a stain. He always used colours with reference to the effect of what was beneath them, as it would show through them. He worked, in short, much less by mixture than by superposition. He disapproved of excessive mixture, and the only way to avoid it when you have but few colours is to lay them over each other and get tints by that kind of combination. Sir William Beechey, in reference to the practice of Reynolds, even says that red and yellow cannot be used together, except by a very skilful hand, without destroying in some degree the purity of both. An admirable colourist wrote to me in reference to this question : 'The Reynolds practice of few colours multiplies tints by varieties of superimposition ; hues are thus obtained which no solid tints nor any mere glazing can approach : there is no kind of yellow which, mixed with white, will make the horizon of one of Cuyp's amber skies. Where cleaners have removed Cuyp's upper painting we see the silvery painting underneath.'

What were the few pigments used by Reynolds ? They vary in different pictures, but are always few ; for when he adopted one it was to replace another that he discarded — at least, temporarily. In 1755 his palette was composed of —

White — Orpiment — Yellow Ochre — Carmine — Lake — Ultramarine — Blue-black — Black.

This palette was complete enough for his needs as a portrait-painter at the time, but it is not chromatically complete. The proof of this is that you cannot imitate all known hues with it ; you cannot, for example, imitate the hue of vermillion with it, nor even the colours of the red ochres, neither can you get the complete scales of green. At other times Reynolds enormously increased the chromatic range of his palette by the introduction of vermillion and asphaltum. In one picture, that of 'Sir Cha and Master Bunbury,' he substituted Prussian blue and milion for black. He took care generally to have a good t (ultramarine), and his sense of the necessity for a bright ye' is proved by his use of orpiment, which is of very great c

matic value, though not durable. One of his chief embarrassments was the series of rosy flesh-tints which he found it possible to get with lake or carmine, but not with vermillion; so when he used vermillion in flesh it was for durability, not colour. A lake of some sort and vermillion are both absolutely essential to a complete chromatic scale in painting. Few as were the pigments employed by Reynolds the necessities of practice compelled him, as we see, to go far beyond that Grecian palette of two ochres with white and black which he approved of so emphatically in theory. He *believed* that everything could be done with it, but in his painting-room he had recourse to Lake, Vermilion, Orpiment, and Ultramarine, for Genius itself cannot escape from the ineluctable conditions of matter.

According to Mérimée, Greuze was fond of dead colouring in full impasto, which he glazed all over, afterwards painting upon the glaze when it was dry, beginning with the lights and proceeding gradually to the shadows. He did not stop here, but finished by subsequent paintings, probably with fresh glazings between them. This account may be true of many works by Greuze, but there is an unfinished portrait of himself in the La Caze Gallery in the Louvre which is begun more lightly. First the subject was sketched entirely in Raw Umber, on this the greys were all lightly painted, leaving the effect of the brown very visible in the shadows where the grey is thin. The modelling of the flesh is firm and its colouring sufficiently full. The pigments used in this picture are —

White — Black — Yellow Ochre — Vermilion — Raw Umber.

This is a very simple palette, but enough for a beginning of a head. The brilliantly painted head of a girl in the same gallery is grounded entirely in Raw Umber and Yellow Ochre ~~and~~ transparently. The palette for this picture consisted of —

White — Black — Yellow Ochre — Light Red — Lake — Raw Umber.

Another beginning of a picture contains a brighter yellow, resembling Naples, and Burnt Umber. I should infer from

these varieties that Greuze liked a simple palette, but changed it according to circumstances. In this way an artist who uses very few pigments at once may employ a good many at various times and even in the same picture.

I mention Wilson only for a peculiar kind of touch which may be found after him in several other English painters, including Turner in his earlier works. It was a broad touch of thick colour laid on for the lights, generally in yellow, red, and light greys, and very uneven, intentionally but not very fortunately, as it afterwards caught dirt and got filled up with varnish. It is one of the most curious things in the history of art how these technical mannerisms arise, get propagated, and are afterwards entirely abandoned. No landscape-painter of the present day ever uses the Wilson touch, and that not from any difficulty in it, for it might be imitated with the greatest facility, but simply because it can only express very primitive ideas about nature.

Old Crome used coarse strong canvas, like the Venetian masters, and left it visible in the darker parts of his land, especially in brown sandy earth, where it helped him to a texture expressive of broken ground. This coarse canvas was purposely made smoother in the sky by thicker paint, just as Titian made his canvas smoother under a face. Crome's lights on vegetation were touched on thickly, for which also he had ample authority in the old masters.

Turner's manner of oil-painting is more easily understood than his complex and original process in water-colour. He began by grounding the whole canvas in substantial opaque dead colour, and having got the large masses forward to a certain point, he hastily sketched intervening masses, such as trees, small clouds, boats, figures, houses, &c., in a thin glaze scumble, just to fix their places, after which he worked up them till they were finished. Sometimes, instead of using the colour for the sketch, he would block out an object in heavy paint (as he did with a buoy once at the Royal Academy in ve

milion) and take away its heaviness, when it was dry, by painting lightly upon it. These processes may be seen in the National Gallery. In the 'Chichester Canal' the picture is broadly grounded, the willows to the left have been lightly sketched in oil, the ship has been sketched across the rough sky in thin lines, and the upper clouds dashed on fearlessly and formlessly in ziz-zag strokes of the brush. The reflexions on the water are hurriedly indicated in the same way. In the 'Petworth Park, Tillington Church in the Distance,' there is first solid colour everywhere, and upon this clouds, distant church, clumps of trees, deer, dogs, are all very thinly indicated, as a preparation for future work.

Even when Turner's pictures were finished, there was often a very great inequality in substance; you will find in the same work the extremes of massive impasto, of protuberant loading, and of slight thin sketching resembling delicate work in water-colour. For the combination of substantial and slight work in the same picture he had authority in some of the old masters. Even in Titian, whose painting was generally so rich, you will sometimes find trees thinly painted upon a sky, and in Rubens this is quite common. Still, in the works of Turner, especially in the productions of his later years, such contrasts are more striking. In the 'Bridge of Sighs' the loading on the place where the bridge joins the Ducal Palace is a quarter of an inch thick in rugged white, and this is a small picture. In the 'Bligh Sand, near Sheerness,' the canvas is rough, but the colour is applied so to make it still rougher, and in the middle of the picture it is heavily loaded. You may find the extremes of thick and thin painting even in a single tree, where the outer foliage is a thin glaze of brown or yellowish green, and the masses nearer the spectator will be represented by heavy smearing of loaded opaque pigment.

Many of Turner's pictures are combinations of water-colour and oil, a combination which was also very much practised by Lancre, the painter of still-life, and with very brilliant effect; but

in Lance's work it was less dangerous, because he kept his water-colour thin, the main use of it being to preserve the brightness of the ground, whereas Turner admitted body-colour. This will account for the perishableness of some Turners, but it is to this day a mystery how he made nearly all of them perishable. They have gone in all ways, they have faded and cracked, and unfortunately they have not passed away harmoniously, like natural decline, but by virulent local diseases.

It is impossible to give Turner's palettes, which probably varied very much at different times. There is, however, good evidence that he used certain pigments, such as Flake White, Chrome Yellow, Gamboge in oil, Rose Madder, and Raw Umber. Others, such as Vermilion, are easily recognisable in his pictures. He painted on white grounds, but the colour of the ground was not of very great importance in his case, as he used a substantial first painting. Everything that he did is interesting on account of his poetic feeling and great powers of imagination, but from the technical point of view it is difficult to conceive a more unsatisfactory transition than that from the sound old masters in the National Gallery, the men who painted for posterity, to the unsound Turner collection.

The reader may find amongst the Stothards in the National Gallery an excellent proof of the value of technical soundness. The picture entitled 'Nymphs discover the flower Narcissus,' is a lovely piece of colour. The canvas was first rubbed over very thinly indeed with the brush, then touched upon thinly, or rather brushed delicately, in opaque pigments, and finally loaded so as to produce a rough surface even in the lighted parts of flesh, all the handling being of that peculiar richness which Reynolds so much appreciated. The little picture is as fine as a Titian, and, I believe, probably quite as durable, where another work by the same artist, 'Nymphs binding Cupid,' utterly ruined by asphaltum. Like Titian, Stothard thoroughly understood the value of a rough canvas. In the 'Mark Anthony and Cleopatra,' the Cupids are lightly painted on a roug-

canvas, and it does them no harm. Even the back of the female figure is uninjured by it.

Constable was technically a very accomplished painter in oil, and though an innovator in some things (but still more in his way of seeing nature than in his technical work), he studied the old masters with great advantage, learning from them what was necessary to the formation of his own original style. That style varied in different works, and has been greatly misrepresented and misunderstood on account of his habit of making rough sketches in oil on a large scale, which have often been sold as pictures. I have no doubt that these sketches, though they have injured Constable's reputation, were excellent practice, and had a good effect upon his art by giving it great comprehensiveness. His 'Cornfield,' in the National Gallery, is finely painted, and superior to 'The Valley Farm,' but of the Constables easily accessible to the public, I think the 'Salisbury Cathedral' is, on the whole, the most completely and satisfactorily representative of the painter's technical excellence. The soft sky passes away imperceptibly into cloud with repeated scumbles and glazes, and though rather heavily loaded in the lights, it is still aerial. The trees are managed with great art. If the reader has access to the picture, he will not fail to observe the very great variety of colour in these trees, and also of light and dark, the beautiful evanescence of the thin leaves against the sky, the strong touches of light for leaves against dark spaces, the clever opposition of light and dark branches and the fine sylvan forms without any tight or hard drawing anywhere. The thick touches of broken colour on the lights were made to catch dragging, as in Turner, but not being so misty or so powdery, bear a nearer resemblance to nature. The field is beautifully painted. Observe the value

the rather coarse canvas and the rough paint in explaining the varied character of the field as the sun catches the grass, & think how difficult it would be to get anything like such a result with smooth, equally applied pigments. The same may be said for the cathedral, the lights on which are loaded and admirably the character of rough stone.

It is very remarkable that of all modern painters Constable has had quite incomparably the widest technical influence. The modern school of landscape-painting in France was founded by the influence of his pictures, because Frenchmen who loved nature saw in them means of interpreting natural appearances, in the kind of scenery they knew best, which surpassed the art of the old masters. The French landscape-painters influenced a whole school of rustic artists, including several very well-known painters of animals, and from France this rustic style passed into Belgium, Holland, and Germany. The next extension of its influence was an invasion of figure-painting, a great deal of which began to be executed on the principles of landscape, and modern Continental art of this class has had, in its turn, a considerable influence in England. The characteristics of this style are strong impasto, a taste for vigorous oppositions in light and shade, a love of rough textures, of decided characteristic touches, and of variety in colour, even in spots. I can make this clearer by an anecdote. Being out at work from nature with an eminent French landscape-painter, I noticed that a farmer had been lopping some branches off the alders, and that my friend did not fail to paint the little ovals of reddish wood laid bare by the farmer's axe. I made a remark about them, and he said, 'Don't you see what a relief they are to my picture; how much livelier it looks with them than without them? There is the advantage of painting from nature, I should not have thought about them in the house.' Now, his liking for these spots of accidental fresh colour was absolutely a modern taste. An old master would have avoided them, he would have painted the stems all brown.

Thanks to Mr. Armitage, I am able to give the palette used by Paul Delaroche : —

White — Naples Yellow — Yellow Ochre — Vermilion — I
— Light Red — Burnt Sienna — French Ultramarine — I
Sienna — Bitumen — Blue Black.

Mr. Armitage says that Horace Vernet used exactly the s:

palette. We have already seen the effects of bitumen in his pictures. Delaroche would sometimes substitute Ivory for Blue Black, and when painting the 'Hemicycle' he added the madder colours to his palette. His method of working was very simple. He would begin by making a very careful drawing in pencil on the charcoal sketch, correcting and purifying his outlines. The next thing he did was to take some warm, transparent colour, such as Burnt Sienna, and indicate with it the shadows of the flesh. He avoided bitumen for this, on account of the danger of painting over it afterwards. When this first transparent shading in monochrome was dry Delaroche painted over it in solid colour, doing his best to reach the intended colouring at once, or get as near it as he could. The first transparent shading was, therefore, in his practice, intended simply as a guide for himself in a subsequent stage of the work, and as a means of sustaining the colouring of his shadows. It had nothing final in its character, like the transparent shadows of some Flemish and English work, which were intended to be left in opposition to opaque lights. Both Vernet and Delaroche had a great contempt for the varnish jellies, and considered that nothing was requisite except a very little linseed oil and a little turpentine.

The following is the palette used by Eugène Delacroix when he left Guérin's studio : —

White — Naples Yellow — Yellow Ochre — Mars Yellow — Ochre de Ru — Yellow Lake — Venetian Red — Light Red — Burnt Sienna — Cassel Earth — Prussian Blue — Peach-stone Black — Raw Sienna — Raw Umber — Vandyke Brown — Indian Yellow — Ultramarine — Mars Brown — Crimson Lake.

This palette, though it contains no less than nineteen pigments, is much less complete chromatically than the palette of one given early in the second section of this chapter, and it affords interesting evidence of the great truth that unless an artist is thoroughly mastered the relations between pigments and colour he may encumber his palette without having a complete

instrument. I do not find here any prismatic yellow, unless you choose to call such the feeble and fugitive mixture of Yellow Lake with White Lead ; and I seek in vain for anything equivalent to Vermilion, which, as I have said elsewhere, is a pigment absolutely indispensable to chromatic completeness. Again, although this palette is deficient in elements of such importance, it includes three pigments known to be fugitive, the lakes and Indian Yellow, and the untrustworthy Prussian Blue. In 1824, when Delacroix painted his famous ' Massacre at Chio,' he kept the above palette just as it was, but added to it Cobalt, Emerald Oxide, Madder, and Purple Lake, the three first most valuable additions, the third more questionable. In the third and last palette of Delacroix whereof we have record, that which he used in 1854, when painting the *Salon de la Paix* at the Hotel de Ville, there are changes of importance. He had now rejected the following five pigments, Mars Yellow, Light Red, Crimson Lake, Mars Brown, and Ultramarine, and he had made the following additions, restoring the same number of twenty-one,— Zinc Yellow, Laque Jaune de Gaude, Vermilion, Laque Rouge de Rome, Brun de Florence, Mummy Brown.

Some of these additions are most interesting. In the palette of 1824 we have a fine blue, a good permanent green, and a valuable glazing red, in that of 1854 we have something like a substantial and permanent prismatic yellow (the Chromate of Zinc), and the precious Vermilion at last. *This* palette is chromatically complete. As for the Laque de Gaude, I only wish it could be relied upon, but fear that it cannot. It is a delightful transparent greenish yellow, admirably adapted for glazing trees and grass, and itself made from a plant, the dyers' mignonette, *Reseda luteola*. Mérimée says that it is one of the most lasting of the yellow lakes, but this is not saying very much ; and though it was used by Corot as well as Delacroix, I fear it will be classed amongst those lovely temptations which try the virtue of artists.

I have not space to say much about Ingres, but the next

the reader goes to the Louvre he would do well to observe the great technical difference between the 'Edipus' with the Sphinx and the 'Source.' The first picture is in the early manner of the painter when he was under the influence of David, and painted conscientiously according to the ideas of the time, putting the best drawing and modelling that he could into his work, but without the least idea of communicating any charm by the management of paint. The handling in the 'Edipus' is as dull and uniform as can be ; there is no attempt at accent anywhere, and the artist has held straight through the even tenour of his way. Nothing could be more unpicturesque in the modern sense of the word, and though there are many fine qualities in the performance they belong rather to sculpture than to painting, for it could be translated, with little loss, into a bas-relief. When you turn to the 'Source,' what a difference ! An old man's work (if we had not known we should never have guessed it), but really painted with complete technical knowledge, though still quite sober and free from modern glitter. A coarse canvas was selected, and in all the prominent parts of the naked figure, those which catch the light, it is so covered as nearly to hide the grain, but as in shade it is covered less there it shows in strong threads. At a distance of a few yards the coarseness does not offend, but becomes invaluable for its effect in softening surfaces and outlines. It would be hard to mention a work in which thick and thin pigments are employed with more perfect judgment.

Of all modern painters Landseer was the most thoroughly popular, and his popularity was not due to his subjects only, but in a great measure to his technical qualities as well. He was a slight but very brilliant painter, who had gained absolute mastery over his own particular kind of art. With Titian he had nothing to do, but you may trace his descent from Rubens. His especial power was to suggest with slight work the effect which another would have expressed with tenfold labour, so it was a matter of course that he should adopt transparent begin-

nings, with dexterous, thin, semi-opaque colourings for the second stage, and very decided expressive touches in opaque colour for the finish. Of all methods this is the most rapid. You see it to perfection in such a work as the 'Young Roebuck and Rough Hounds,' at South Kensington, where the roebuck is simply rubbed in with semi-transparent colour, afterwards disturbed with the brush to get texture, and lightly scumbled with cooler tints here and there, and touched with dark markings. There is marvellous skill in the touchings on the dogs. Besides these dexterities Landseer was very clever in *preparing* his transparent ground colour so that its uneven surface would afterwards catch thick opaque colour dragged over it, just in the way he wanted; he did this a great deal for his rocks, and he had a way of rough-casting certain textures, particularly wool, in a way that turned out to be strikingly successful when the picture was finished. Never was human being so clever as Landseer in the art of making a picture look brilliant by dots and sparkles of high light, set with the utmost skill (as I have said elsewhere) just in their proper places. On the whole, the painting of Landseer, considered technically, was cleverness itself, but it is not the finest kind of painting, being superficial in comparison with the most thoughtful work, and speedily exhausted. Many of his pictures seem likely to be durable, but some are injured by cracks. 'The Drover's Departure' is a sad instance of this, as there are fissures in it measuring a quarter of an inch across.

The latest style of Mulready is interesting as a return to an early principle of art. The colours used are not exactly transparent, except in parts, but though opaque in themselves they are used so thinly that they become semi-transparent by mere tenuity, and so the white ground of the panel or canvas shows through them, and the lines of the drawing may be easily allowed. This is painted drawing, almost on the Van Eyck principle, the difference being that Van Eyck's work was substantial in the shadows, where it was more sustained by strong transparent first painting. There is hardly any pigment

on the latest works of Mulready, but they may last a long time if the colours used are not fugitive. I know, on the evidence of Samuel Palmer, that Mulready employed a green on the landscape in one picture which was composed of chrome yellow and asphaltum, but I hope it was not his custom ; and he used iodine scarlet on the child's top in his picture of 'The Widow,' but it was probably pure and locked up in varnish.* A good example of Mulready's later style is the 'Sonnet' in the Sheepshanks Collection, where the boles of beech and the rocky foreground, with green and reddish vegetation, are all very thinly painted and very luminous by the effect of the light in the ground. There is hardly any paint whatever on the shaded sides of the trees.

Was this manner of painting the maturity of art or its decline ? It was simply the return to a primitive principle, as when some modern Christians, weary of elaborate rituals, try in their own way to get back to the simplicity of the Apostles. There have been many returns of this kind in the fine arts, and they are perfectly blameless ; still, it would be a great mistake to adopt Mulready's later style as if it were a development when in reality it was a reaction. Modern painting is far more variously powerful than it could be with such limited means. Simply to be well drawn and luminous is not enough. Mulready's later work is without substance, and though the colouring is bright it is crude, and more like porcelain-painting than nature.

Linnell's method of painting is a modern development of that of Rubens. The 'Landscape, Driving Cattle,' at South Ken-

* Iodine scarlet, the most brilliant of all known pigments, is unfortunately not durable even in water-colour. I painted a number of coats-of-arms about thirty years ago, in which I employed iodine scarlet for gules, and now it has simply vanished, leaving the white parchment in its place. The decomposition began by a metallic efflorescence, then the pigment became thinner and thinner, as if it had been washed with water. Finally disappeared, leaving only some faint traces of its presence here and there. In oil it vanishes if used thinly. It may be preserved for some time in water-colour under a glaze of gamboge.

sington, is begun in rich transparent brown, and it seems likely that the browns of the earth were painted into whilst wet with greens and other colours. The sky is painted with a full brush in opaque pigments undisturbed after application, so that they retain the expressional power of the brush which Rubens so greatly valued. Very probably Linnell may have varied his methods in other works ; no doubt in many of them the brown foundation would be less important, it might even be absent, but in all the Linnells I have ever seen two or three important principles are observed : — 1. There is a play of transparent and opaque colour with about equal appreciation of the services each can render. 2. Rich touches of opaque pigment are left undisturbed so as to get full executive expression. 3. Some kind of varnish medium has been employed to make transparent colours stand thickly in places where required.* Though founded on Rubens, this manner of painting is fuller and better developed than his, and a more suitable expression for our greater modern knowledge of landscape.

The famous Hungarian painter, Michael Munkacsy, has been good enough to explain to me, in his own studio, all the elements of his method. He begins by a rich brown monochrome, with plenty of varnish, on the drawing. This monochrome is in itself a fine, well-nourished, picturesque sketch, and before it is dry he works into it a second sketch in colour, not at all in what we call dead colour such as Titian used, that is, with little chromatic intensity, but a play of the most various and brilliant colour, from a palette chromatically complete, such as a colourist would do for himself before nature if he had not time to finish. One of Munkacsy's pictures at this early stage is a fine medley of hues through which you may trace the intentions of the artist. In subsequent paintings he develops form through this and brings the colour better together by uniting it.

* The reader will see towards the close of this chapter that Li and some of his friends made a varnish for themselves long ago to assure of the purity of the ingredients, and kept it in stock.

never clings to lines, but considers nature as a quantity of patches of light and dark, and of different hues. This is quite essentially a painter's conception. The striking effect of Munkacsy's pictures is due in a great measure to their powerful oppositions of light and dark, which are planned from the first in the monochrome. His process of finishing does not make the painting look harder, sharper, or more minute, but brings out and harmonises the masses. Though his work is kept intentionally sketchy to the last, it is by no means careless. There are passages in the 'Milton and his Daughters' which look simple, but were painted many times over to get a low-toned harmony; and the large picture of 'Christ before Pilate,' which has the appearance of the utmost facility, occupied two whole years.

There is a glorious sketch of a torrent by Müller in the National Gallery which is very nearly in Munkacsy's manner. The first bold sketch was in brown, and on that various greys and browns were lightly painted, the work being finished with massive thick loadings and draggings wherever wanted in the strong touches for the lights. Even the dark grey blue gloom of the far-away hill has probably brown under it, whilst it is evidently the foundation of the rich dark brown land in the middle distance. The brown local colour of the Highland torrent is simply the ground colour left apparent with its intentional inequalities. One bit of technical skill is especially delightful, I mean the wondrous management of that gleam of loaded sky above the mountain. The broken nature of the loaded colour gives in itself the sense of broken sky. It always seems to me that for a painter who has the courage to attack British mountain scenery here is the technical method if he could at all approach Müller's power in using it. This is grand painting, nobly adapted to fine effects and sudden inspiration.

Some eminent English painters have, like Munkacsy, frankly explained to me their favourite ways of work. There is not room in these pages for all the information so communicated, but I give what is of chief interest and importance.

The reader is already aware that Sir John Gilbert is an earnest advocate for the old Flemish system of a monochrome foundation. He paints his monochrome transparently in Raw Umber upon a white ground, and when it is dry he glazes it with Raw Sienna. This gives a pleasant golden brown which can be easily turned to many other tints by light semi-opaque paintings, and which is very favourable to harmonious colouring. Sir John carries the monochrome far into detail, even to the extent of drawing a ring on a finger, and he believes that by this finish of the Umber painting time is gained in the end. 'The comfort is immense,' he says, 'in getting in the picture complete in composition and drawing — *to the smallest detail* — in the Umber as I have described. You cannot well get out of harmony if the ground for the shadows is jealously guarded to the last.'

After the glaze of Raw Sienna is dry, Sir John puts all his higher lights in with pure white, to ensure their brilliance afterwards. To understand how he colours his monochrome, the best way will be to take a portion of a subject — say a piece of drapery which is to be coloured red. When the white is dry he passes thinly a wash of the intended colour over it with a rich medium (such as Roberson's), and enriches the shades with deep glazings of lake, dark lake, &c., also with a rich medium. He may then increase the intensity of colour upon the lights, and the same in the darks. When half dry he will touch into lights and darks again, 'thrusting as it were, the brush into the thick, clotty colour, dragging it in parts. This is a process most difficult to describe in words, but it is the delight, the glory of painting.'

Sir John uses two kinds of medium — a thin one, composed of turpentine and linseed oil, the thick one of Roberson's medium with the addition of a little copal varnish, or else makes a megilp by mixing mastic varnish and linseed oil in equal proportions. He employs the thin medium in the beginning of a work until the Umber and Sienna are done with,

the thick vehicle is used for striking on the lights in the monochrome, and for all the subsequent work of colouring. He likes a strong and rough canvas 'single-primed.' He has a strong dislike to the habit of taking up colours with the brush as they come out of the tube. 'I set my palette,' he says, 'in the old-fashioned way, laying the colours in order, and mixing each to the same degree of fluidity. I never squeeze the colour from the tube, leaving it unmixed by the knife. I *think* the brush should always be charged carefully, and the practice of driving it into the stiff unmixed colour is bad, and quite prevents this, for you lift, if I may so express it, an undigested lump of pigment on to the canvas, and have to do *there* what should have been done on the palette. To lay the colours from the tube on the palette, and then mix with the brush, is not at all a good practice.'* Sir John Gilbert is careful to let the monochrome tell in the shadows, changing it to the required colour by glazing.

The most important point in Sir Frederick Leighton's practice is his very sparing use of vehicle. He uses none whatever

* I have no doubt that the old habit of setting a palette by mixing tints with the palette-knife and arranging them in order is a very good and praiseworthy habit. Some careful Dutchmen carried it to a wonderful degree of elaboration, so as to have the tints all ready, as a lady has her different Berlin wools, or a worker in mosaic his *tesserae*. Nevertheless, the reader will soon see, from the practice of some modern artists, that this mixing of tints with the palette-knife is not by any means essential to careful work, and there are two objections to it. The first is, that it is hardly ever possible to foresee *exactly* what tints will be required, so as to mix them quite accurately beforehand, and if they have to be modified the work is done twice over. The second objection is the time that it takes to set a palette. To do it properly takes an hour, which an artist may give before a long sitting, but if he happens to have only two hours before him, he does not like to spend one of them in mere preparation. For amateurs this objection is most serious, as their sittings are generally short and they want to set to work at once. They should use few pigments, and resign themselves to mixing with the brush except for large spaces, such as skies, when the palette-knife becomes a necessity.

till near the end, except that he thins his pigments with turpentine when a line or wash has to run freely, and he is particularly careful to have fresh turpentine every day. He does not like to have much oil ground up with the colours, but orders them 'ground stiff,' as the colourmen say. The grounds he uses are unabsorbent. In Sir Frederick's opinion, a picture ought always to remain porous and dead in surface until the last moment. Just at the last he uses Roberson's medium. When living abroad he employed the well-known *siccatif de Harlem*, but abandoned it in England, because he thought it did not take kindly to English pigments.

Mr. Armitage always paints on grounds which have been primed with substantial stiff white lead, allowed to dry thoroughly, and then scraped. In other respects he has always followed the method of Paul Delaroche, with a few modifications. He does not use Bitumen, and abstains from both of the Umbers. Cobalt blue he has almost discarded, except for sky and landscape, but has a higher opinion of the French Cobalt green, which he 'finds almost indispensable.' He has also added Pinard's yellow to the Delaroche palette besides madder lake, and the brown lake sold by Mr. Roberson called 'deep yellow madder.' Mr. Armitage is not much more addicted to the use of mediums than Paul Delaroche was; still, there is a difference in this respect, for whilst Delaroche discarded the varnish mediums altogether, Mr. Armitage employs that made by Mr. Roberson, though very sparingly, often abstaining from it until the picture is nearly finished, and then rubbing a little over the part which is to be painted upon next, and besides this he uses Roberson's medium as a thin varnish for the whole work when the picture is thoroughly dry, rubbing it in well with a stiff brush. Like Sir Frederick Leighton, he objects to oily colours, and tracts superfluous oil by squeezing the pigment upon blotting paper. He never sets a palette in the old-fashioned way mixing tints.

Mr. Calderon says that he never mixed a tint in his

though he knows of some painters who mix light, half-tint, and shadow, for each drapery or object with the most admirable results.* His palette contains fifteen well-known pigments, which, with the exception of Antwerp blue, have often been mentioned in this chapter. He likes single-primed canvases with a texture sufficiently perceptible to catch the colour. He uses mediums sparingly, but has employed at different times copal varnish, the *siccatif de Harlem*, Roberson's medium, and a megilp he makes himself by pouring equal quantities of mastic varnish and linseed oil into a pot, when the two combine into a jelly.

Few artists have aimed at freshness of touch more consistently than Mr. Calderon. First, he composes his picture mentally, and when the composition is well fixed in his mind he puts it on the canvas in colour, and without models, using solid pigments until the picture looks very much as he intends it to look ultimately, and all the figures play their parts to the satisfaction of their inventor. At this stage, however, the picture is not yet in full effect, nor so completely realised in detail, as the author intends it to be. The colours having dried, Mr. Calderon now for the first time has models, and avails himself of them for reference as he paints the picture over again upon the first painting, bit by bit, a face here, an arm there, and so on. And now we come to the most essential principle of his practice. Each part is painted solidly and at once. If the artist is not pleased with it he removes it entirely and begins again. A head may be painted twelve times, but the eleven attempts before the final satisfactory one have been entirely scraped out, and what the public sees is always one decided piece of straightforward painting.†

* It is better, if tints are mixed beforehand, that they should be prepared for a special purpose in a particular part of the work, rather than in a general way for anything or everything, as there is less waste of time and colour. It is provoking to have made sets of tints which turn out to be of no use.

† A well-known Royal Academician (not Mr. Calderon) told me that

Mr. Calderon uses double canvases, one over the other, for security. Mr. Holman Hunt paints on canvas, but puts a panel behind it for protection against accidental injuries, such as a push from the corner of a picture-frame in the confusion which precedes and follows exhibitions, a kind of injury which, if not visible at the time, may show years afterwards in starred cracks in the hard paint. He likes, when possible, to have the painted side of the canvas defended from the influence of gas vapours and town atmosphere by a glass, at least during the first twenty years of its existence ; after which, if the glass is thought objectionable, it may be replaced by a coat of varnish. He is extremely careful about materials of all kinds, doing all in his power to ensure their freedom from adulteration and their durability.

Mr. Hunt's palette is never fully set at the same time, but his box is chromatically complete, so that he has every possible tint at his disposal when required. French Ultramarine he avoids as much as possible, because in many samples with which he has made experiments a white element has been thrown up in after years, and become apparent on the surface. The colour called Yellow Madder, Mr. Hunt does not believe to be a madder, but, except in a tendency to become pale if used sparingly, he sees no reason to distrust the pigment itself in the darker varieties. The pale Yellow Madder is sometimes too alkaline in nature, and the Carmine Yellow Madder is so much so that when dry it will wash off with a sponge, or in a short time will crack and fall off in small flakes. With regard, however, to the dark variety which Mr. Hunt has used, he finds that it has remained quite sound in pictures painted more than twenty years. He has observed the same of Lemon Yellow, Orange Vermilion,

a head in his principal picture at the exhibition of 1881 had been painted forty times. It looked delightfully fresh, and as if it had been done with the utmost ease. An intimate acquaintance with the manner in which artists actually do their work is a complete deliverance from the unpractical doctrine that the fine arts will not bear alterations.

Madder Carmine, the two oxides of Chromium, Cadmium, Malachite Green, Chrome Green, and even Emerald Green, when used alone or with Lemon Yellow or Gamboge.* Emerald Green, however, will not bear mixture with Cadmium, but turns dark brown in conjunction with that colour. Mr. Hunt is careful to avoid the lighter varieties of Cadmium altogether, probably because they are so easily adulterated with chrome. It is to be observed that the pictures in which the above-mentioned colours were employed were done on a perfectly white ground, and that the colours themselves were only applied in a single painting, or coat, whilst at the same time the artist used copal more freely when there was any reason to fear the fugitiveness of the colour.

In addition to these colours, which being of modern introduction have been mentioned separately, Mr. Hunt uses the older pigments which follow:—Flake White—two Naples Yellows—Yellow Ochre—Raw Sienna—Chinese Vermilion—Venetian Red—Indian Red—Crimson Madder—Indian Lake—Burnt Sienna—Raw Umber—Burnt Umber—Laque Robert—Cologne Earth—very deep burnt Lake—genuine Ultramarine—Antwerp Blue—Cobalt Blue—Blue Black—and Ivory Black. These, with the modern pigments already mentioned, make a list of thirty, of which a few are in use at once. Mr. Hunt rarely mixes tints with the palette-knife, unless for objects in which he detects no particular subtlety of tones, such as stone-work, or other things in which none but a superficial plane can be imagined. In flesh he goes to the other extreme, and often makes greys and undeclared tints by working positive hues of an opposite character one over and into the other, whilst they are wet. About the years 1850 and 1854 he also worked in transparent, or semi-transparent, colours on

* The reader may possibly be misled by French writers on colours when they speak of *Vert Émeraude*. That is not what we call Emerald Green at all. It is what we call Emerald Oxide of Chromium. Our Emerald Green is the *Vert Véronèse* of the French writers.

wet white, for effects of sunlight, but he never used brilliant colours on dry white. His practice was to prepare those parts which required great brilliance and softness together with a bed of stiff white, mixed with a small proportion of copal, and this he immediately proceeded to work upon with transparent or semi-transparent colours until finished. Mr. Millais at the same time produced great results by this process, and the present condition of the work so executed proves the method to be good for durability.

Mr. Hunt usually works now on a stone-coloured ground, prepared either in oil or tempera: when on an oil ground he begins with an outline in chalk, pencil, or ink, and upon this he lays in thinly the light and shade of the whole composition with white, grey, and brown tints, made limpid with turpentine or benzine, to which a little copal is added in order that there may be uniformity of elements with later paintings. When, on the other hand, the picture is begun on a tempera ground, as three of Mr. Hunt's later pictures have been, he begins with the grey and brown tints ground in water, and effects the transition from water to oil by thinly covering the whole canvas with a certain copal and oil varnish diluted with turpentine. This varnish is not to be had from the colourmen, but was made about forty years ago under the personal superintendence of Linnell, Mulready, Creswick, and Webster, who took the trouble to compound it themselves, that they might be certain about the integrity of the ingredients. It was given to Mr. Hunt in 1853. Before that time he used the copal preparation by Roberson, diluted with linseed oil by the aid of turpentine, the mixture being made each morning, so that by evaporation the medium became richer for the last work of the day. Mr. Hunt's purpose in using varnish is not to attain that very rapid drying which Landseer valued for pictures painted quickly. On the contrary, Mr. Hunt lessens the drying quality of his copal medium by gently simmering it with so much linseed oil that a touch on the bare canvas remains wet two days or more. He

is always anxious not to use too much of the medium, putting the smallest possible quantity into the dipper, and avoiding a general glaze at the beginning of a day's work until the last painting, when it becomes necessary to bring out the tints to their full value. In earlier years, Mr. Hunt always painted his background first, but now he generally paints the whole of the figures in with faint colour, and then paints the important parts of the background before giving the final degree of colour and modelling to the principal figures. In the intervals of his different stages he makes an important point of drying and baking his picture well in the sun, according to the old Venetian practice.

In the selection of the above examples, and of the old masters at the beginning of the chapter, I have been guided by a desire to show the varieties of practice which are included under the generic title of Oil-painting, and I think it will now be evident that this art is not really one art, but several. I believe, also, that any attempt to set up one of these arts as the only right and orthodox manner of painting would be exactly the same mistake as if we were to say that an oak was a right tree and ash and elm wrong trees, that a horse was a right animal and cows and sheep wrong animals, that English was a right language and French and German were wrong languages. My opinion is, that difference of species does not constitute either merit or demerit; but, notwithstanding this, I still think it is evident that a real and firm distinction may be established between a primitive and a developed art. Amongst the varieties of oil-painting, you may easily detect the unripe, the ripe, and the over-ripe. I should say that the early Flemish painting is sound but unripe; that the painting even of Raphael and Leonardo is unripe, though not their drawing; that the painting of Titian and Velasquez is ripe, and so in other kinds is that of

Rubens and Watteau ; that amongst moderns the work of Landseer is quite ripe in its own kind, though it is not a rich fruit ; that Linnell's is ripe and rich at the same time ; that Turner's was ripe but not sound. And now I want to say a few words about over-ripeness in painting.

It is quite evident that a good deal of recent work, especially in foreign schools, is past that stage in which art is at its perfection. There are three stages in the technical history of painting. In the first, the painter draws firm and delicate lines and clings to them tenaciously to the last ; he is also most careful to preserve the luminous quality of his ground, his only trust is in preservation, he has no faith in any power of recovery, he is timid, careful, conservative. In the second stage he has got beyond anxiety about his line, he takes and leaves it with great freedom, just as the eye loses and finds it again in nature, but he is careful about modelling, and will not represent such a thing as a face or an arm without showing you plainly the rounding of its forms. He is absolutely indifferent to the preservation of his ground, or of anything else, having perfect confidence in his own power of recovery ; he is fond of executive expression, he likes to leave his sign-manual by showing his workmanship, which the early workman concealed ; he neglects nothing in colour, effect, or texture, which may add to the interest, without injuring the unity, of his performance. He takes advantage of everything in the materials which can make you feel either the strength or the delicacy of his genius ; he expresses all the visible qualities of natural things, the roughness and hard substance of granite, the friability of sandstone, the transparency of water or its depth, the aerial lightness of a cloud, the shadowy lustre of hair, the warm softness of the living human body. And beyond all this, including and affecting every quality and every detail, he observes and obeys the strange and wonderful laws of vision by which matter is transformed for us into a half-dream, by which we see things, not as they are in themselves but as they are when confused in the radiance, or veiled in the

gloom of the universe — this universe where nothing is ever seen as it is, but only by gleams and glimpses, where a planet seems greater than Aldebaran, and a shimmer of moonlight on a mill-pond is of more apparent consequence than either.

The over-ripeness of art is indicated by the excessive predominance of fragmentary appearances in the mind of the artist, when a glance of light upon a leaf or a twig and a bit of broken dark shadow seem to him more important than the growth of the tree, when the sparkle of a jewel attracts his attention more than the shape of the arm that wears it, when the texture of a cow's horns and that of the hair between them is the subject of greater pains-taking than the arrangement of a group of cattle. Finally, this over-ripeness leads to a kind of dexterous sketching, generally done with the palette-knife, which jumps from sparkle to sparkle, from spot to spot of shadow, like a wren in a hedge, without caring in the least about modelling a form, or about painting anything steadily and seriously with the brush. The French Salon of 1881 abounded in work of this flickering kind, and it appears to be the final development of French painting. There are still, of course, many exceptions ; men like Landelle and Bouguereau, who do not allow themselves to be disturbed by the prevailing fashion, but Landelle is considered out of date by the new school, and Bouguereau a Philistine who paints for grocers. They are both a little primitive in paying more attention to line and less to texture than the best men of the present, but then they really do draw and paint, they use the brush, and can follow a line or model a limb, which, if the present tendency works to its ultimate results, nobody will be able to do in the next generation. In landscape this tendency may be less offensive, but even here it is unpleasant to see that plastering with the palette-knife has replaced oil painting with the brush. When the brush is not abandoned one may admit a system of dabs if they unite together at the right distance to produce the intended effect. Gustave Denuyts has adopted a manner, as in his picture of the 'Thaw,'

in the Salon of 1881, which is entirely dependent on dabs of grey, brown, red, &c., each left in its place without retouch, or change, or even a glaze, transparent and opaque colours being used indiscriminately side by side. The result is good, owing to the artist's great knowledge of effect, but though the picture has in a remarkable degree the valuable quality of freshness it looks only like a magnified sketch, a hasty souvenir of a sloppy road near a village. Appian's present system is more objectionable. It resembles nothing so much as the lumps of opaque colour on an overcharged palette. The loading is enormous and not of pleasant quality, especially the smearing of thick paint on skies. There is hardly any form, and to replace it we have many gleams and spots of intense and very various colour. Modelling and the manual expression of the brush are both conspicuous by their absence. Karl Daubigny has arrived at a system of smearing in wet paint and leaving the smear. When this is done with judgment it tells effectively enough at a distance, but it is not pleasant execution. These men are far from being ignorant; they are experienced artists who know the qualities of painting, in all probability, quite as well as the writer who is now criticising them, but they belong to a school in which the art is over-ripe, like a fruit that has been left too long upon the tree, and to a time when the restless search for novelty and force of style has driven artists to abandon all sober and delicately observant work for a system of splash and sparkle.

The reader may remember these principles the more easily if they are stated in a brief *résumé*. It is possible to do this in a very few words. In primitive or unripe art the line predominates and is made more visible than in nature, in perfect or ripe art the line is subordinate and substance prednates, in art that is more than ripe substance is replaced glitter.

I must not conclude this chapter without a brief descrip of oil-painting as it is best applied to mural decoration. M

of my readers may have seen the large oil-paintings of M. Puvis de Chavannes which have been exhibited at different times in the Salon. They are quite out of place in an exhibition of pictures, and the first feeling they excite is ridicule, but when we know them better, and have seen them in the places for which they were intended, and have entered into the ideas of the artist, a man of culture who has devoted his whole life to the special work of mural painting in oil, we begin to be ashamed of our shallow judgment. The fine new Museum at Amiens is the best place to see them, especially in the staircase, and there is a curious fact about that staircase which is worth telling. The ceiling of it was brilliantly painted by a clever artist who had the usual French palatial style at his fingers' ends, and could put majestic groups into gorgeous costumes fit for a royal dwelling. Puvis de Chavannes had the great wall-spaces, and he filled them with serious groups of primaevial men and women toiling or resting in vague vast landscapes all in dead colour, with a border round each composition of fruits, leaves, and flowers, on a blue ground painted in the same dead manner. Did the ceiling kill the wall-paintings? No; what happened was precisely the reverse. The wall-paintings, dull as they had looked in the Salon, turned out to be exactly what was wanted to harmonise with the dignity of architecture, and they belonged so perfectly to the building that they made the ceiling look utterly superfluous and out of place, so it is to be done away with, and the light, instead of coming in by side windows, is to come from the roof. The wall-space so gained is to be filled with another great dead-coloured composition by Puvis de Chavannes.

The rules that he observes are simply these:— 1. To keep surface quite dead, which may be done with spike oil turpentine.* 2. To paint in a light key, as if in fresco,

* The canvas used is strong and coarse, and the threads are not much den by the pigments, which are not loaded. It is not stretched on nes but *marouflé*, which means that it is pasted to the wall with a

renouncing all the effects of depth belonging properly to oil. 3. To keep the work as simple as possible throughout, avoiding small details and pretty colours and everything resembling tricks of effect. The figures are more heavy than graceful, and they are broadly defined — the landscape is a world made on purpose for such figures. These conceptions are remote enough from nature ; they are dreams of a *primaeva* state in the dim past, and just for this reason they are more easily adapted to the artificial character of architecture, with which pure nature can never be happily associated.

Comparison of Oil-Painting with Nature.—The different kinds of painting in oil and varnish which are included under the term ‘oil-painting,’ comprehend the most effectual of all known means for the interpretation of natural appearances, both as to the qualities of different substances and the effects under which we see them. The oil-painter can either work from dark to light, from light to dark, or from a middle tint lying exactly between them to both of the two extremities. In this respect he differs widely from most draughtsmen, and from all engravers whatever, for there is no species of engraving which allows the artist to go in the light or the dark direction with equal facility. Besides this advantage, which is of immense importance always, but especially when the artist has to deal with light or dark details to be painted upon work already done, an oil-painter can model more deliberately, and therefore more thoroughly, than a painter in any other medium, and the resources of his art in the way of texture make it unrivalled in the representation of natural surfaces. It may, at first sight, appear rather beyond the present comparison to say anything of the great expressional power of oil, when the brush leaves the impress of a master’s energy,

strongly adhesive substance. This protects the back of the canvas from damp, whilst the canvas itself keeps the plaster well together. I hoped that this kind of mural painting may last as long as any other present known to us.

thick or thin pigments, but in reality even this, which seems a purely mental, a purely human expression, is also an interpretation of nature, for a calm execution is in harmony with Nature's calm, and so conveys the feeling of it to our minds, whilst a forcible and even violent execution may often powerfully help the impression of natural energy. No one with a sense of what is suitable would paint a boating party on Virginia Water with the vigour of handling which would be appropriate for a naval engagement.

The fine arts always range between at least two opposites. Engraving ranges between white and black, and also between thin lines and thick ones. Charcoal drawing ranges between white and black, with intermediate gradations of shade. Oil-painting has many such oppositions at its command with a gamut of degrees between them. The reader will easily discover most of these for himself; but there is one of which less account is usually taken than, in my opinion, it deserves, and that is, the opposition between coarseness and delicacy, of which the two extremes are always at the command of an oil-painter. I need not say that I use the word 'coarseness' quite without any intention of blame. It is only a material coarseness that I mean, which is not only quite compatible with intellectual refinement, but is often one of its expressions. What I mean is more particularly this, that whilst he is at work any skilful painter in oil can always, at will, make any part of his picture either delicate or coarse, according to the nature of the thing to be represented, and that quite independently of the substance on which he is painting, be it smooth panel or rough canvas. He can, himself, make all sorts of surfaces when he pleases, and he can paint upon them either rudely or with refinement. It is this which gives to oil-painting its unequalled force of representation. It has also degrees of transparency and opacity at command which cannot be approached in any art except that modern form of water-color which is an imitation, an echo, of itself. Lastly, the power of unlimited correction is most favour-

able to the representation of nature, for it seldom happens that even an accomplished artist can get exactly what he wants at the first attempt. The facility with which changes of intention can be carried out makes oil-painting the best colour art for students, as charcoal is the best in black and white.

CHAPTER XXII.

PAINTING IN WATER-COLOURS.

IN turning over the pages of this volume and in glancing, however carelessly, at the headings on the right hand, the reader can hardly fail to have been struck by the great variety of methods and of substances employed by mankind in the graphic interpretation of nature. The wonder seems to be, especially if we regard the fine arts as simply imitative, that one or two, or at the most, let us say, three or four, different kinds of drawing have not been preferred, after conclusive experiments, to all others, and that the rest have not become simply obsolete, like superseded doctrines in physical science or tentative inventions in the mechanic arts. There is oil-painting, for example — certainly the dominant kind of painting in the modern world — an art of splendid power and wonderful versatility, and it may seem surprising that water-colour should be able to maintain even a mere existence in the presence of such a rival; yet not only has water-colour co-existed with oil, it has flourished vigorously in England and had a considerable share in the general modern prosperity of the fine arts. On the Continent it has been less appreciated, but although undervalued and misunderstood for generations it is not permanently kept down by the superior strength of oil, but is gradually gaining in importance as its qualities are better known. It has been employed by painters of great eminence in various countries, especially since 1870, and at the present time (1881) its future prospects are brighter than they have ever been before.

We are often very effectually helped to a right understanding of things by considering the foolish prejudices they have encountered. The Continental prejudice against water-colour is giving way, but I am old enough to remember it in all its force. I remember the time when water-colour was not considered a serious art in Paris, the time when a painter famous for his work in oil might play with water-colour as a relaxation, but when no artist, however great his knowledge and his natural artistic talents, could hope to get them recognised by working in what was then considered a slight and frivolous medium. Water-colour was practised by girls at school, and through one of those illogical associations of ideas by which mankind is governed, and nowhere more absolutely than in France, it was inferred that artists who confined themselves to water-colour had little more than the artistic capacity of school-girls. It is useless to meet a prejudice of this kind by reasoning, for reasoning will never disentangle two ideas which have once become firmly fastened together in the popular mind. It was settled that water-colour was frivolous, just as our own classical scholars had decided that modern languages were frivolous, and you could no more get a Frenchman to learn water-colour properly than you could make a proud Englishman condescend to observe the inflexions of French verbs.

Meanwhile (so mighty is the power of a word) all Frenchmen who prided themselves in having correct views about the fine arts professed unbounded reverence for water-colour under another name. They despised it when it was called *aquarelle*, they bowed down to it when it was called *peinture à la fresque*.

Fresco is water-colour on fresh plaster. The mode water-glass process is water-colour on dry plaster. What call 'water-colour' is generally done on paper, and it is nearly as possible the same art as the two others, the difference being that the water medium is enriched a little

the gum that holds the powder together in cakes or tubes, and also by honey when slow-drying water-colours are employed. There is another difference in the substance on which the colours are laid. Fresco is done on a mixture of lime and sand, water-colour is done on paper, the advantage here being entirely on the side of water-colour, not only for the convenience of the artist in working, but also because paper is really a better substance for water-painting than *intonaco* ever can be. Paper is tolerant of many pigments, *intonaco* destroys all but a few; colours laid on paper undergo but little change, on *intonaco* they alter greatly. Paper has a richer and better texture than any mixture of lime and sand, and the textures of paper admit of such boundless variety that they may be made to the taste of every artist who uses them. Water-colour on fresh plaster (which we call *fresco*) does not permit alteration, water-colour on paper stands half-way between fresco and oil in this respect, permitting much, but not infinite, alteration.

As to seriousness and frivolity, there is not the faintest shadow of a reason, in the nature of things, why a water-colour on paper should not be just as serious a performance as one on either fresh or dry plaster. People despise paper because it is cheap, and they think it is a frivolous kind of substance because it can be torn easily; but why associate it with intellectual frivolity when all the most serious modern books have been not only written upon it but printed upon it also? It is one of the most beautiful and perfect substances ever made by the ingenuity of man. It is, at the same time, one of the most various, one of the most adaptable. Parchment is one thing simply, in greater or less perfection, but paper is a thousand, and amongst the thousand an artist will generally find, not roughly nor approximately, but precisely what he wants.

It is quite unnecessary to adduce evidence that paper is well adapted for learned and serious drawing, since all the greatest

masters of design have used it habitually, whilst they rarely employed parchment and vellum. The modern art of water-colour painting is not the daughter of fresco, nor of painting in tempera, nor even of oil-painting, but simply of drawing on paper as practised by the old masters in line at first with a flat auxiliary wash. As the wash grew in importance it ceased to be flat and admitted modelling, the line was replaced by markings with the point of the brush, and the full water monochrome was the result. But even before water monochromes were fully disengaged from the auxiliary line they were sometimes tinted, thereby suggesting colour and approaching it. Modern water-colour is the final development of the tinted monochrome, which was done in bistre or Indian ink and washed in tints far below the full chromatic strength and variety of nature. Our water-colour might possibly have come from mediaeval illumination, which was a kind of water-colour on parchment in bright pigments, but that is not a true account of its pedigree. It might have happened that mediaeval illumination passed into English water-colour of the bright pre-Raphaelite kind without any transition through monochrome, but the truth appears to be that the true origin of modern water-colour was in the use of a washed brown shade on paper. Nevertheless, as will often happen in these historical questions, we may be startled from time to time by finding something in past art which seems to contradict our theory by an anticipation of future developments. There is a curious instance of this in a study of a stream by Rubens,* a little stream such as would interest a modern English landscape-painter. Rubens seems to have gone to it quite in a modern temper, and to have made his study in body-colour just as we ourselves might do on any summer's day. He painted the alders with their reflection in the water, the irises in green lights against dark, the sprays of foliage silhouetted against brown darks, the reddish brown bank of the

little stream, and the distant blue hill beyond. With such a beginning as that there seems to be no reason in the world why the art of water-colour landscape-painting as we know it should not have been developed soon after the death of Rubens ; but this was only one of those strange anticipations by which men of genius sometimes project themselves, as it were, a couple of centuries into the future.

The failure of illumination to lead the early artists in the direction of true water-colour was due to its own principle, and this principle deserves a parenthetic paragraph to itself. Illumination is not founded upon drawing in any advanced meaning of the word, it is not founded upon light and shade, and even (what the reader may be less prepared to admit) it is not founded upon colour. The true principle of illumination is to gratify the taste for bright colours which belongs to children and to those ages of the human race that are the childhood of humanity. The drawing in the best mediaeval illuminations is no doubt quite skilful enough for merely decorative purposes so long as organic form is excluded, but although the illuminators often displayed considerable powers of observation, although they noticed a great deal that interests and amuses us in action and expression, it would be a misuse of language to say that they could draw anything beyond simple and conventional form. However complex their decorative work may seem, it is soon analysed and easily copied, which can never be said of really accomplished drawing. The refinements of organic form, and the mystery, the intricacy, the abundance of landscape, were all alike hopelessly beyond the range of the illuminators. Any good modern coin contains more drawing and modelling in the profile than their most elaborate miniatures ; any good modern charcoal sketch contains more light and shade. With regard to colour, which engrossed so much of their attention, they hardly got beyond heraldry. They could place a few right and decided colours side by side, as our grandmothers

used to do in their patchwork quilts, and they could communicate, to minds as simple as their own, their infantine delight in vermillion and gold, in blue and emerald green, in purple and orange, but they knew no more about *colour* (in the high artistic meaning of the term) than if they had been so many flower-loving butterflies or bees. It was natural, therefore, that mediaeval illumination, after having developed its own principle and reached its own perfection, should pass away in a decadence of its own, without transforming itself into something so different, so far superior intellectually, as the modern art of water-colour. The influences of illumination may be traced in early oil-painting, and they are perhaps even more clearly visible in fresco, but they had died out before the modern schools of water-colour arose. It is well they did so, and if anything is to be regretted in the history of the art at all, it is that the love of bright pigments for themselves should have led some modern artists, who had more enthusiasm than culture, to a system of mediaeval colouring which encourages the belief that water-colour is inevitably crude.

The water-colour process in use in the eighteenth century was that of tinted monochrome. This was quite in accordance with the practice of many distinguished painters in oil who worked upon monochrome most successfully, as we have seen in the last chapter, but the two arts are pursued under technical conditions so widely different that what is good in one may be very much less advantageous in the other. The constitution of an oil-picture is naturally robust. It is painted upon canvas or panel, and the colours become so firm in drying that a second application of them, if unsuccessful, may be removed at the end of a day's work without any serious injury to the painting that lies beneath. Again, whilst you are actually engaged in the work of painting, your brush does not disturb the work done at a former sitting, you work up it easily, without mixing the two layers of colour. Wat-

colour, on the other hand, is naturally an art which has a delicate material constitution, and there is a closer necessary relation between the pigments and the substance which carries them, and also between one layer of pigments and another than that which subsists in oil. In true transparent water-colour the paper is of far more consequence than the canvas or the panel in oil, and the obscuring of the paper by washes of brown or neutral tint before colouring is begun is a far more serious matter than the darkening of a canvas with Raw Sienna and varnish. It may therefore happen, and I believe it really is the case, that while a monochrome foundation is not objectionable in an oil-picture, it is likely to be intrusive in water-colour. I believe that modern English water-colour painters have acted wisely, in the interest of bright light and pure colour, in rejecting the preliminary neutral tint of their predecessors. If you paint, let us say in Indian ink, the general relations of tone in your picture, and then work upon that in transparent water-colour, the Indian ink will show through all the tints you lay upon it and chill them and change them. Many a tint which would be lovely on pure white paper, or on paper of a creamy hue, would look foul on ground of a cold grey. Whatever may be the colour of the first chiaroscuro painting, it is plain that it ought not to be too cold. Sepia or bistre, with a wash of Raw Sienna, would be safer than Indian ink or the cold 'neutral tint,' but although such a preparation might be good for some parts of the picture it would not be equally available for all. It would spoil every tender blue, every cool, light, and transparent green in sky or water, though it might well sustain the stronger greens of the foreground and the russets of autumnal foliage. There is, I believe, but one really safe system in water-colour, and that is, to prepare the ground colour of each part of the picture with special and separate reference to the work which is to be laid upon it afterwards. According to this system the colours used in preparatory

work will vary in every picture and in every part of it. If the reader desires to know some plan which will involve less care and thought at first, he has the resource of employing some very simple palette, such as that mentioned in the chapter on Oil-painting, for a dead-colour — Cobalt, Yellow Ochre, and Light Red. White and black were added to these for oil, but in water-colour the paper supplies the white, and if black is used at all it should be with the utmost sobriety, because it cannot be so easily overcome by lighter subsequent colourings. It would be difficult to mention three pigments more generally useful in water-colour than the triad given above. David Cox used to say, 'Play with Cobalt and Light Red.' Wyld attaches so much importance to Cobalt and Yellow Ochre that he keeps these pigments, and these alone, always in a state of purity on his palette. He calls them 'two contending principles, and modifications of red and green which the *slightest* addition will change them to.' This is the reason why our triad is so available as a beginning of colouring in the most various directions. It gives us all the important oppositions in a state of initiation, and by subsequent colouring with brighter, or deeper, or more intense pigments, they may be carried out fully to their consequences.

It has been observed already, with reference to oil-painting, that there is a certain contrivance by which a work that is not really in colour may be made to suggest colour, and even to pass for it when the public is not severely critical. Great numbers of paintings have been produced which are really nothing but monochromes with touches of colour to make people believe that there is more than they really see. The system is not quite strictly honourable in works that pretend to be pictures, but it may often be of great practical use in mere studies done for the artist's own collection of memoranda. Drawings may be made in brown for a basis — in sepia or bistre — and then touched upon freely with decided colour.

in places as memoranda, to suggest to the mind the effect of full colouring if it were carried out. There are instances of this kind of work amongst the studies of the old masters. There are drawings by Rembrandt in brown with bold decided patches of red and yellow for parts of costume. In the British Museum* there is a man on horseback drawn in brown with pen and wash, but his baldrick is yellow, and there is red on his saddlecloth and his boot. A companion drawing by the same master shows us a negro on horseback with a kettle-drum, and the basis of the whole drawing is brown line (probably with a reed-pen) and flat brown washes, yet the dress, the drum-cloth, the parasol, and the bridle are all red, and the kilt is yellow. Now, these are not works in colour, and they have not the slightest pretension to be anything of the kind — they are really works in brown with indications of different colours done in this way for convenience. It is plainly more convenient for a painter to lay a few patches of colour in this way upon a brown drawing than to write the names of the hues, because the result is more immediately legible. If, however, any regard is paid to the appearance of such sketches as works of art, care must be taken to employ such colours only as will either harmonise with the brown or else offer an agreeable contrast. It has been observed elsewhere that even in monochromes the laws of agreeable colouring must be respected. We can never escape from these laws under any circumstances — they are present even in engraving, where the tint of the ink and that of the paper must be so related as to avoid offence.

There was a modification of the simple monochrome in the water-colour of the eighteenth century which gave the opposition of coolness and warmth, and was used to convey the ideas of distance and nearness. The early water-colourists often used the greys of Indian ink or neutral tint in their instances, and a brown in their foregrounds. The distances

* British Museum D. Rembrandt, 1859-8-6-74.

might even be frankly blue, if the blue was kept pale, without seeming to call for more colour elsewhere. The progress from work of this class to real colour might be marked by the gradual admission of hue amongst the brown, especially of reddish or golden modifications of brown, and after that a little green of an unobtrusive quality would carry the artist to the verge of complete colouring. Whether this gradual progress from monochrome to colour, first through grey and brown, and afterwards by admitting blue into the one and gold and green into the other, be or be not the best initiation into water-colour painting, I do not presume to determine, but I am quite certain that it is a good initiation, and we know that Turner, as well as some other distinguished painters in water-colour, entered the paradise of colour after having first passed through this apparently dull and sombre portal. Some other painters of ability have not thought it necessary to advance to colour through this preparatory discipline, but it will always be found, I believe, that if this discipline has not been followed exactly, the initiation which it affords has been gained in some other way, perhaps through some dry process, such as charcoal, for light and shade, and after that by the study of quiet colour in another medium, such as oil or varnish. The study of quiet colour is made inevitable for all who pass through the discipline of figure-painting, since it so happens, most fortunately for such students, that the human body can be painted without bright unmixed pigments, and directs attention to the principles of quietly observant colouring rather than to the puerile pleasures of illumination. It is of little consequence by what technical means we learn colour, provided only that our initiation teaches us to discriminate between those unobtrusive tints which the untutored eye fails to perceive. After this training, but before, the painter may deal safely with hues of great brilliance.

The danger of water-colour, in comparison with oil, is

crudity of colour which only the best masters avoid, and even they themselves appear at times to become insensible to it, as if there were something in water-colour itself which made the eye become gradually tolerant of a certain harshness and rawness. Perhaps the best safe-guard against this might be the frequent practice of some other art, such as oil-painting or pastel; but besides this it is necessary to remember when actually occupied in the practice of water-colour that the fault of crudeness is natural to it, and is only to be avoided with especial care. There are two classes of tints especially which may become to the eyes what vinegar is to the palate, the raw greens and the raw purples, and, by that law of nature which makes the sinner in one thing liable to sin also in another, it seldom happens that the lover of greens that set your teeth on edge has not at the same time a perverse passion for violets or purples of exactly the same quality. Unfortunately he can find in natural landscape and in botany a great number of combinations which appear to authorise his taste. It will be found generally that his greens and purples are not exactly those which he quotes as authorities in nature, but he certainly comes much nearer to them than the old masters with their inoffensive brown. For example, your crude modern water-colourist is on a Highland moor with purple heather and patches of brilliantly green grass, the colour of both intensified by recent rain. If he paints it as it appears to him his work cannot have the slightest resemblance to that of any old master, because the old masters did not paint heather at all, and they did not recognise the natural green of grass. He will not even get help from Turner, for although Turner understood the sublimity of the Highlands so far as broad effects of light and shade are concerned he never once made anything like a thorough study of the colouring of a Highland moor. In the absence, then, of all authoritative human guidance, the modern water-colourist sits down to receive a lesson from Nature, and takes

it for granted, first, that her teaching must be sound and safe ; and, secondly, that it may be available for himself. He feels and knows that his colour is nearer nature than conventional brown could ever be, and if you tell him that it is crude he feels it hard to be condemned for his honesty and his accurate observation. Evidently there is a mistake somewhere ; either he is wrong or we are. The mistake is in supposing that natural colour is always safe in art. It may strike us as beautiful in the natural world and still be offensive in painting, because painting requires a moderation, a limitation, and a balancing of quantities, of which nature appears to be almost entirely independent. But besides this, when you come to look quite closely into the matter, you will perceive that although your water-colourist (I mean your average English water-colourist, not a great master of colour) is extremely observant, and knows far more about heather and grass than the old masters, his colour is not the true colour after all, but is really a translation of it into something harsher, just as when a lady has been speaking to that dreadful invention, the phonograph, it will repeat the words she has uttered, but in tones that are a torture to the ear. Is there any rule or precaution by which a painter in water-colour may guard himself against so great and so prevalent an evil as this ? The early masters of his art are without value as examples, because, instead of fairly meeting and conquering the difficulty, they evaded it by shutting their eyes to natural colouring and by translating it into more manageable hues. The only practical remedy appears to be to remember that water-colour is essentially a very delicate art, the most delicate of all the graphic arts, and that, like all exquisite modes of expression, it is easily overstrained. When painters are crude and harsh in water-colour they are driving their art too far. The one safe rule is to keep well within the intensity of natural colouring, to be satisfied with approximation, and always to study delicacy rather than attempt to conquer by violence. Advice

of this kind may be distasteful to young artists, and they may be ready to mention, in reply, many bold and vigorous works quite comparable to the strength of oil, but I would ask them to reserve their judgment till we come to the end of the chapter. No doubt water-colour may be a strong man's art, for a strong man will put his vigour into anything, but still there are some modes of expression which are especially favourable to delicacy, and these ought not to be forced.

There are many minor varieties of this art, but two broad divisions must be settled before we proceed farther. You will find in the same exhibitions of the water-colour societies two distinct kinds of work, one of them founded upon the principle that the light is to come from the paper, the other on the principle that it is to come from opaque white mixed with the pigments. The first resembles the early varnish painting of the Flemish school, the second is like the loaded opaque oil-painting of the modern French. Now, between these two kinds of painting there is nothing in common except the name. The pigments in both may be diluted with water, but the principles on which they are used are so diametrically opposed that the arts are essentially not only different but really opposite arts. Some painters have blamed opaque painting in water-colour as if it were an aberration, but this appears to be only the common error of reprobating an independent religion as if it were a schismatic form of our own. Opaque water-colour has the same right of existence as tempera, or oil painting, or that kind of fresco in which lime is mixed with the pigments and loaded with the brush upon the wall. Transparent water-colour has the same right of existence as the early transparent varnish painting, and it seems even to have proved a stronger claim by a longer survival, for whereas in oil the opaque system has superseded the transparent, in water-colour it is not so.

Between these two distinct arts of opaque and transparent water-colour there lies a third, in which transparent, semi-

transparent, and opaque colours are used freely in combination. One painter, Mr. Wyld, tells me that of late years he has mixed a little, but a very little, Chinese White with all his tones in landscape, because he finds that even when its presence is unsuspected it adds sensibly to the effect of atmosphere.* Again, even when the main principle of a painter is to make the light from the paper tell, he may yet have recourse to white for small touches of light upon dark objects.

I propose to take these three kinds of water-colour separately, and to speak of the transparent first. It is founded upon the thin, old-fashioned, flat, auxiliary wash, and upon the luminous effect of paper. The manual expression of it depends upon the skill with which the artist manages the liquid colour with his brush, so that it shall flow into the right shapes, cover the proper spaces, and be just of the intended hue when it is dry. The dexterity and knowledge required for work of this kind are such that, instead of being an easy art, as many people imagine, water-colour is really a very difficult one, for nobody can have the certainty of hand that it requires until he has practised it long and assiduously, with a complete analytical knowledge of the natural forms and effects to be interpreted. There may be some temerity in deciding that one art is easier than another—I am sure that the popular opinion is rash and wrong about the supposed facility of water-colour, and I do not wish to fall into a similar error about another art—but if both water-colour and oil-painting are to be done well, I believe that oil is the easier of the two. The difficulty of water-colour is greatly enhanced by the different behaviour of pigments when used in washes. Some of them deposit a sort of powder in the little hollows of the paper, which produces a speckled appearance; others mix more completely with water, and do not make any depos-

* Harding used to do the same. He was very clever in using body colour so as to produce a good atmospheric effect without attracting attention to itself as a pigment.

of this kind. The difference in this respect between French Ultramarine and Indian ink is immense. Again, there is a very great difference in water-colour (it is not felt in oil) between the difficulty of using a pigment in a pale, diluted condition, and that of using exactly the same pigment when it is necessary to have it darker. A pale sky, for example, is always easier to paint than a dark one, and much less laborious. 'For dark skies,' a very accomplished painter in water-colour wrote to me, 'I believe that nothing but often-repeated washings and retouches will do the work well. The finest storm skies I ever saw are Turner's—Stonehenge, the Mew Stone, &c., and they are all stippled like miniatures. The stippling, which is perhaps unavoidable for equalising tints, becomes very precious in giving a twitter and vibration that mere washing can never give. When I fairly wash a sky with a large and very soft brush (a flat one is the best) I generally take off as much colour as will come away without absolutely resorting to friction.'*

The deposit of particles in the little hollows of paper when the pigment will not readily dissolve in water, and is not divisible enough for mere suspension to produce the effect of solution, is tolerated by many artists of mature skill with a patience that sometimes surprises amateurs, but when workmen have really mastered a craft, even the imperfections of it are made subservient to their purposes; and so it will be found that the very speckling of the paper which we dislike when it happens against our will, may be a happy accident under certain circumstances, when it produces the effect of stippling and makes a sky more penetrable and more profound. This is so in Alfred Hunt's drawing of Dunstanborough, where the atoms of matter in the grey sky are left

* Repeated washes or spongings on grained paper take off much of the surface colour, whilst they leave atoms of colour in the hollows, as printers' ink is left in a plate when an etching is printed. The effect of this is often valuable in the interpretation of natural texture and quality.

on purpose, with excellent effect. If, however, the artist objects to it, he has two ways of fighting against it. A very small proportion of Chinese White mixed with the other pigments will go a great way to obviate it—the opaque white thickens the water and seems to prevent the molecules of colour powder from settling down together in the hollows. If this is not used, the only practical remedy is to take out the specks one by one very carefully with the point of a camel-hair brush, and with this and other exercises of patience, a skilful artist will sometimes spend a week over a single sky.

All kinds of devices have been resorted to by water-colour painters to make washes appear even and delicate when the brush-marks are not to be seen. In modern water-colour the sponge and the rag are used nearly as much as the brush, and when hard edges of colour are to be avoided, the artist often damps or wets his paper and works upon it before it has time to dry. The most convenient way of doing this is to stretch the paper on a frame instead of stretching it on a board, and damp it behind. Water is sometimes actually poured on the surface of the drawing during its progress, for the production of certain effects; or it is applied in spray, like a fixing solution on charcoal.*

It is found in practice that when an object occurs in the middle of a broad space of delicately gradated colour, such as a cloud in the sky, or a boat on a lake, it may be painted boldly upon it when the coloured space is much lighter than the object; but when it is darker, either the space must be coloured all round the object or else it must be first painted as if the object did not exist, and then a small space of paper must be cleared of colour so as to give the opportunity for a fresh piece of painting in that place. If a few clouds are scattered over the sky, like little islands with definite shapes,

* Blotting-paper is often used on large washes in a certain condition, and sometimes a large surface is gently caressed with the badger-hair softener until it is dry.

the best way is to paint the sky first as if they did not exist, and then wash the paper just where the clouds are to be, and paint them on the washed places. When the forms are delicate the best way is to draw them carefully on a separate piece of paper and cut them out with a sharp pen-knife. Then, by a process of stencilling, the sky is washed off in the cut shapes—washed off, that is, more or less as the artist may desire; as when something of the sky colour is left it may occasionally be an advantage.* It is believed that a more perfect harmony between sky and clouds may generally be attained by this process than by leaving the paper for the clouds at first, and painting round it; but in rapid sketching from nature stencilling is never resorted to. In sketching there is no attempt to do things neatly—all the process is left visible in the rough: skies are painted round clouds, as water in a flood runs round an eminence and makes an island of it; whilst the artist troubles himself as little about the blotting and splashing of his blue as the flood thinks about its waves. Such defects as hard, dark edges to a blot of colour, and great differences of intensity in the same blot, are not objectionable in sketched work, provided only that a general balance of right colour is preserved. In Alfred Hunt's drawing of 'Pangbourne-on-the-Thames,' the colour on the darker portion of the sky, in the left-hand corner, is slopped on very unequally, and does not really represent the perfection of the natural azure, yet the effect of it is right

* It is scarcely necessary to mention the well-known fact, that if water is allowed to rest for a while on any portion of a drawing and then removed with blotting-paper in such a manner as not to spread it beyond the edge of the blot, the wetted colour can be fetched off easily with a rag. In this way small forms may be drawn with a pen charged with pure water, and the spaces cleared of colour so as to be white and ready for fresh painting. Grass, &c., so treated is not so sharp as when added in body-colour, but it harmonises better with the general appearance of a transparent drawing. The water fetches the colour off better if there is a little gum in it.

synthetically in the work taken as a whole, because the rest of the drawing is *primesautier* also.

There are two broad divisions of transparent water-colour — one in which all the manual processes are left visible, the other in which they are concealed. All true sketches belong to the first ; in them there ought to be no concealment whatever, the roughness which results in them from visible defects due to rapidity of workmanship is not really a fault if only the work be harmonious and expressive of knowledge and power. When there is time to be very deliberate an artist may, however, be right in desiring to get rid of this roughness, and approximate rather more nearly to that perfection of nature in which it is never to be found. To mention a special case, the blotting and splashing of uneven colour in the azure of the sky. It is constantly tolerated in sketching, but there is no such inequality in the sky above us. The sky is not uniform, it is true, but it is gradated with the most exquisite perfection, so that a rough water-colour sketch is only a rude human interpretation of it. A painter may desire to imitate this perfection, and though he cannot really attain anything equivalent to it, he still can convey to us with wonderful success the idea, the impression, of a sky not made with hands. But to convey this impression in its purity the hand-work must be concealed ; as when it is desired to produce the effect of ideal music in an opera by Wagner the musicians are hidden from the audience, who neither see the ups and downs of the fiddlesticks, nor the puffed cheeks of the trumpeters, nor the gaping mouths of the vocalists, but can give their attention to *music*, for itself and in itself.

Between these two principles of shown work and hidden work the water-colour painter has to make his choice even more decidedly than other artists, for there are few kinds of art in which the manual labour is naturally so visible as this. Water-colour is naturally (I mean when cunningly employed) to screen and conceal the true nature of the

work) one of the most straightforward and above-board of all the forms of painting. This is the great charm of water-colour sketches. You see the painter at work, even when he has been dead a hundred years, you follow him in his eager excitement, you pause with him in his weariness, and the work is a living thing. The genuine water-colour sketch has the vitality of an inspired etching, and as it has colour besides drawing, it conveys to the spectator not only a much more vivid impression of nature, but all that kind of sentiment which depends exclusively on colour. The more landscape is loved and understood, the more fine, honest water-colour sketches are valued. They are valued for a freshness which in itself recalls at once to memory the freshness of the lake, the moorland, and the ocean, of passing cloud and shadow, of the mountain air on our faces, or the sea winds in our sails.

The genuine water-colour sketch is dependent for most of its charm and power upon the skill with which the artist masses together the many details of nature, so that the loss of detail in mass shall not be too severely felt. The broad relations of tone and colour have to be observed, and the painter works for these, taking care that there shall be no incongruity in the colouring of any considerable spaces which it is his business to give boldly and decidedly with a full brush. He does not positively exclude detail, but he only gives just as much of it as he chooses, dealing with it generally rather by suggestion than by positive delineation. The advantage of water-colour over the ordinary processes in oil is that the water-colourist, in the presence of nature, can modify his tones by superposition and add such details as he requires as soon as his first painting is dry. The drying is, however, irregular, because it is dependent on the degree of heat in the atmosphere. In a southern summer it is even too rapid; in the cool evenings of Scotland, water-colour dries so slowly that it is a serious hindrance to quick work. To remedy this inconvenience a friend of mine tried brandy

instead of water as a diluent, and found it to answer perfectly. I have myself painted many small studies with tube water-colours and brandy in cool weather, and found the combination a great convenience. Stronger or purer alcohol does not answer so well, because common brandy has just that degree of strength and purity which enables it to mix well with the pigments whilst it is an excellent drier. Ale is a good and pleasant medium for water-colour painting, but it is not greatly superior to pure water as a siccative.

Few men have been so well endowed by nature for water-colour sketching as William Müller. He had in an extraordinary degree that synthetic faculty which enables an artist to grasp the aggregate results and effects of details without being puzzled and embarrassed by their importunity. In the Print-room at the British Museum there is a magnificent set of sketches by Müller, done in Lycia, which I would gladly dwell upon if it were only possible to show every one of my readers the noble works themselves. In sketching of that highly synthetic character the qualities of the natural materials are not by any means slavishly copied, but they are translated into another language with a vividness of understanding which makes such work not less remarkable as an intellectual feat than it is obviously as a manual performance. Mr. John Harrison, a physician learned in matters of art as well as in his own profession, was a friend and companion of Müller and often saw him at work. This is his account of Müller's ways after his return from Lycia :—

' Müller made a magnificent sketch, the background indicated by a wash in the old way ; the nearer hues put in magically with a camel-hair, but with rather a drier, crisper touch, I thought. A large ash-tree stood upon a marly, rocky bank ; the earth had crumbled away and the roots were exposed in snake-like contortions of various lengths and colour : he outlined them all, giving every twist and turn backwards and forwards, scarcely moving his pencil from the paper. In colouring he separated them with rapid

dark touches from each other; it seemed almost impossible to avoid damage in this network of angles and circles to the narrow outline; but no, in a few minutes he had compassed all. This sketch (half imperial) on white Harding paper, large trees in the foreground, with rock-work and details of roots, &c., and the background of trees in gradations of distance indistinctly characterised, occupied him about the usual two hours. His rapid precision was wonderful; all was done upon the spot, Müller rarely touched upon his sketch after he had left the ground. I thought his power of colouring was, if possible, increased. His sketch, like his other works, always beautiful in subdued tone, and in the absence of strong colour, was even more grey and silvery than before he left for Lycia.'

Mr. Harrison and Müller were out one day together when the physician made a sketch of a church-tower amongst foliage and a river flowing through a plain, whilst the artist looked on doing nothing. At last he could resist the old impulses no longer, but exclaimed, 'I really must paint.'

'Accordingly,' says Mr. Harrison, 'he dipped the brush, a good-sized hog-tool, into the white, and painted over the edges of the clouds with broad touches, putting mine to shame; then, with brown pink and indigo, he went over the trees by the church, carried them higher, darkened them, and massed them. He worked upon the tower, and afterwards went broadly across the meadow plain with broken tones of warm colour, modifying the uncomfortable too literal greenness I had given to the fields. Turning to me, he said, "My hand is not what it was, but I can make a straight line yet." There was a "rhine," a cutting for water-drainage running right across the meadows to the river. He dipped his brush in dark colour and, holding it between his fingers without resting his hand, drew a long line perfectly straight from end to end, and afterwards, with a few touches, added the reflections on the water. "He smiled rather mournfully, and returned me the sketch. "There," he said, "I have purposely left some of your own work untouched," pointing to a scrap of blue distance.'

It is plain from this account by a highly intelligent eyewitness that Müller not only produced sketches which have

the appearance of having been done at once but that they honestly were done so, and that he possessed in perfection the true gifts of the sketcher. Mr. Atkinson tells us that 'at the time of this feat Müller had got back again to white paper and transparent colours. For the moment, with habitual facility, he took up the materials used by Mr. Harrison, which consisted of a large sheet of brown paper on a strainer, zinc white, and colours ground in simple water used with a starch medium.' Müller had been quite accustomed to opaque sketching also, on low-toned paper. The first sentence in the following quotation from Mr. Charles Branwhite gives evidence of Müller's liking for a straightforward process :—

'He cared very little for washings, but always tried to get up to the tone at once, as I think most men do who paint in oil as well as water. He always ground up his own white himself, and used simple chalk and a little gum. This is a most difficult medium to use, from the fact that when wet it is transparent and dries out opaque, so that it is a sort of guess-work as to what colour it dries. He always used the dry cake colours, he used to say the moist ones were sticky. His colour-box was just the same as the one you have seen me use, kept moist by wetting. I have often seen him take a piece of rag the size of the box, dip it in water, and lay it over the colours before shutting the box.'

Another witness, Mr. Robert Tucker, who had known Müller since his boyhood, wrote to Mr. Atkinson :—

'I had many opportunities of seeing Müller work, and have frequently admired the force and decision of his handling. He rarely needed to erase or alter what he did, there were no *pentimenti* in his practice. He had, too, that perfect mastery over his material however refractory, which distinguishes great artists. He was likewise an ambidexter, so that he could use the left hand as easily as the right. These qualities, united with great rapidity of execution, will account for the number of pictures he was able to produce during his short career.'

The system of sketching practised by De Wint had great influence in its day and was based upon a sound principle. De Wint seems to have had complete faith in the doctrine that if the masses could be got right in tonic and chromatic relation the sketch might be considered finished. So it might, no doubt, as a sketch of masses, but the most entertaining sketches do not remain always quite so absolutely faithful to this principle as those of De Wint. They admit detail in parts where it happens to be most interesting, and go from detail to mass, from mass back to detail, at pleasure. Still, though not the most lively of sketches, the broad washes of De Wint convey a good abstract of the natural landscape when he was successful with his colour, which he was not always. It is quite as legitimate to make an abstract of nature by mass as by line, and by coloured masses as by broad shades of charcoal. The only objection to transparent sketching of this kind is that the transparency of it can never really render the solidity of nature, which is very completely suggested by opaque painting, especially in oil. There must always be a certain thinness in transparent water-colour, a washiness which prevents it from looking substantial, but we accept that exactly as we accept the opposite defect of too much opacity in mural oil painting of a purely decorative kind, such as that of Puvis de Chavannes.

The water sketches of Turner were generally a combination of line and colour. We have seen already that the line with an auxiliary wash is an extremely rapid manner of getting form and light and shade together by a sort of duet played by two different instruments. If the wash is in colour we get hue in addition, which saves the artist from the necessity of spoiling his drawing by scribbling words or signs upon it for tints, and is more immediately legible afterwards. But now comes a question of a subtle and perplexing kind. The line itself will have colour of some sort, or its negation, and so may easily be discordant and offensive. On white paper the

hard lead-pencil, cut to a fine point, supplies a line of a metallic grey, very like silver-point, and as nearly neutral as can be, so Turner used it constantly for his water-colour sketches on white paper, often leaving the wash extremely pale and delicate, that it might not overcome the pencil line, and in some parts, especially in distances, the pencil would be left to execute a solo passage of its own, quite without accompaniment. This system did well for sketches in a high key of light, such as Turner often executed in Italy, and particularly about Rome; but it would not answer for dark drawings, because in these the line would be overpowered by the wash, except in their pale distances, and there he would sometimes use it still. The difficulty was to choose some kind of line which would not spoil the colour and yet would not be overcome by it. Real black would not do at all. It had been employed by some draughtsmen of the eighteenth century in the timid work which they first made out in detail, with the pen charged with Indian ink, and then washed with various tints, but the effect of the constant intrusion of black lines amongst colours is always destructive of colour-effect. Indelible brown ink is much better. A colour sketch may be done upon indelible brown ink lines with very little offence to the eye, but this ink is pale and soon overwhelmed, whilst a deeper brown put on colour-work afterwards is too much of an interference. Turner resolved the difficulty with characteristic audacity. He chose red for his lines, a choice determined simply by the chromatic difficulty, for he did not care to draw in sanguine or red chalk alone, as the old figure-painters were accustomed to do. The system was successful in its own way, but it has been misunderstood. It was successful because the vermillion line, instead of conveying to the eye the negation of colour, as a black line would have done, conveyed an energetic affirmation. The sketches of Turner with the coloured washes and the vermillion line may not be true to nature, but they give the idea of colour at the first glance, as flames, even

a distance, give the notion of heat. The red line in Turner's sketches has been misunderstood, because it has been taken for a representation of nature. It is not natural, any more than red eyes in a sanguine, and yet it is difficult to suggest any kind of line which, on the whole, would have done less harm to the chromatic effect of a colour sketch, especially when the scheme of colour was fiery, as in Turnerian sunsets.

Turner was not by any means a slave to one system, even in a single drawing, for he varied his manner of work according to what seemed the necessities of the occasion. The red line we have just spoken of is very conspicuous in a sketch of Lausanne looking east from the terrace, yet in the same drawing we find masses of foliage dabbed in boldly on the modern blot system, without lines, and hardly connected as yet by the scarcely indicated stems. The buildings are drawn in red lines, and so are the carriage, horses, and figures, but these red lines cease when the painter approaches the distance, which is represented by pencil and a light wash. The remotest Alps are simply outlined in pencil without any wash of colour.* This analysis appears to prove that Turner found the coloured line most useful in those parts of his drawing which were neither intended to be dark nor very pale. The thoughtful care with which he gave it up in the distance and sacrificed the wash itself in the remote distance, is just one of those exercises of intelligence which distinguish fine art from simple industry.

Turner often used line (not necessarily red) on grey paper in combination with washes of body-colour. The brush appears to have been fully charged, and the wash applied with great breadth and decision, the object being rather to realise

* So they are in a lovely but highly idealised sketch of Vevay, where distance is treated with much lightness and delicately melted into sky by the brush, thereby contrasting strongly with the stiff liny quality of buildings.

an ideal in the artist's mind than any close resemblance to nature. The noble French series, of which many, but not all, were engraved in the 'Rivers of France,' include wonderful examples of this kind of sketching. In some subjects the grey paper is overcome by body-colour, but in others the paper is itself made to play quite an important part. The 'Chateau Hamelin,' on the Loire, is on coarse grey paper washed upon freely in body-colour without lines, but the grey of the paper itself, quite undisguised by any tinting, is made to do for the sky, though of course there is no gradation in it whatever. On the other hand, there is a nameless subject of a fort, a bridge, and two towers. The sky is lemon yellow in body-colour, and so are the reflections in the water, except the red water under the bridge and city. You would hardly know that the sketch was on grey paper at all if there were not a bit of it left visible in the left-hand corner.

Although no draughtsman ever knew the value of line in sketching better than Turner did, there were times when he felt that any linear statement of fact would be an intrusion and spoil the mental impression by giving too positive a character to his work. There are effects so ethereal that even a delicate line would seem harsh in the midst of them, like a telegraph wire in a mountain cloud. In 'The Righi from Lucerne,' an effect of rosy sunset light on a hill-side, and incipient moonlight on a lake — all is interpreted by broad washes kept purposely soft in outline, the moon and her path of glitter being simply washed out, not drawn in any determinate manner, but there they are, like the moon in Ossian.

Of all water-colour sketches, I do not know a more useful class than little blots of colour about the size of a visiting-card. They should be done on good paper, with a fine grain, stretched as carefully as if for a more important work. They may either in transparent colour on white paper or in opaque grey, but for this purpose transparent water-colour is preferable, because it makes use of the brightness of the paper

its hues are not spoiled by mixture with white, of which there is always a risk when body-colour is used. Such studies ought never to take a long time, it is enough if they occupy from ten minutes to half an hour ; but they should be executed with the most conscientious care, not at all for detail, but simply for relations of colour. Small and unimportant as a sketch of that class may appear to those who know nothing about art, it may contain more beauty of colour, and especially more truth of relation, than many an ambitious landscape in the Academy. The best in my possession was done by Wyld, in the Pyrenees, early on a fine morning, and its object was to preserve the exact relations of tone and colour between a pale sky and mountainous distance, and near autumnal woods casting dark shadows on a slope of rich green hill pasture. It carries one to the mountains at once by the power of truthful, unexaggerated colour, and is radiant with that luminous atmosphere which bathes mountainous France in autumn. An extensive collection of such studies would give a landscape-painter the diapason by which he might keep his larger works in tune.

I cannot leave the subject of sketching from nature in water-colour without some mention of an extraordinary gift for it lost to the world by the premature death of Jacquemart. He began water-colour early in life, and quitted it for etching, in which he attained a science of drawing and a power of interpreting the nature and quality of different materials which astonished all the connoisseurs in Europe, and were, in fact, entirely without precedent in the history of engraving. It is not the place, in this chapter, to dwell upon Jacquemart's talents as an etcher, but I mention them for a particular reason. His study of etching had gradually developed extraordinary powers, and when he returned to water-colour, which he did to spare his declining strength, he found himself in possession of an eye and hand such as rarely belong to etchers with the brush. Nor was he, either, in the position

of a laborious commonplace engraver who tries to paint for a change. Water-colour had been his first love, and he came back to it with a heightened passion, as one who has wandered in youth revisits well-known scenes after years of abstinence from travel. He felt, too, the sure approach of the day when there was to be no more sketching of any kind, the day when his eyes would be darkened to the sunshine of Mentone. So, having but a little while to live, and a wonderful skill yet quite perfectly in his possession, he sketched with eagerness and at speed. He had so much certainty that there was no need of correction. His system was to use rather a rough paper, white or slightly toned, and to leave it everywhere as luminous as possible in the lights, with rich darks for contrast wherever the subject allowed them. All the accents of the brush, the washes, dashes, splashes of colour, were left clearly visible just as he laid them, so that his splendid knowledge of drawing and texture showed itself like unhesitating eloquence. His manual skill was such that he could play about his lights and reserve them, not needing either to take them out afterwards or to put them on with opaque colour. His experience of southern sunshine had led him to take delight in vivid oppositions, which gave great vivacity to his drawings. His colour was truthful but a little crude, as natural colour often appears when translated honestly on paper. He obtained a powerful expression of light by noting all cast shadows and painting them clearly and decisively with sharp edges and their proper relative degree of darkness and coldness. There is absolutely no connexion whatever between observant study of this kind, with its frank rendering of light and dark greens, greys, and purples, and the old-fashioned landscape study which never could rid it of brown.

Sketching like that of Jacquemart or Müller, or like that of Turner when he kept most near to nature, requires highest possible degree of readiness, both of hand and head.

A student who wishes to acquire this readiness can only do so by refusing himself all permission of correction and repentance. He must go straight through his sketch, from beginning to end, resolutely. If, when it is done, the faults of it cause him too much mental suffering, and suggest thoughts of suicide, the best way is to destroy the unfortunate performance at once ; and yet even a bad sketch, done honestly from nature, generally contains some truth which ought to be saved from annihilation, and which may be precious afterwards. The following rules about sketching in water-colour are founded upon the experience of accomplished men :—

1. Form is always to be sacrificed to colour when both cannot be got in the time.
2. If the colour is right in paleness or depth, the general result will of necessity include sound relations of light and shade, but these in their turn are more important, in brush sketching, than form.
3. Truth of detail is always, in a case of necessity, to be sacrificed to truth of mass. A blot, in right relations of tone and colour to the rest of the work, is better than a number of correct details out of tune.
4. Freshness is a greater virtue in a sketch than strict accuracy either of form, light and shade, or colour. A laboured sketch is a spoiled sketch.
5. Inequality of work is not an evil in sketches. They may be detailed in one place, and in broad, formless masses elsewhere, without inconvenience.
6. All executive defects, which are simply the results of speed, and not of ignorance, are perfectly admissible in sketches. No intelligent critic requires an artist to put those perfections into them which cost much time and labour.

The reader has seen that corrections are hardly admissible in sketching, but it is an error to suppose that water-colour painting, done deliberately in the studio with all the resources and conveniences of the art, does not permit alteration. The best answer to a popular error on this subject was given to me by a water-colourist of great experience in these words : ' I can take a piece of paper,' he said, ' and provided that the quality of it is sound and strong, and that it is sufficiently sized, I can paint a finished water-colour upon it, in any tones you please, and then turn it upside down and paint another landscape on the same paper with the sky where the foreground was and the foreground where the sky was, and the drawing shall go to an exhibition where nobody shall be able to guess how the paper has been treated.'* The boldness of this shows the temper in which an experienced artist works. Confident in his own resources, he treats his materials with the perfect determination to make them acknowledge him as master.

Another great difference between sketching and painting in water-colour is, that in painting the tones are often got by superposition, whilst there is not time to get them so in sketching, which has to be done with the greatest possible directness.

Superposition is certainly more important in water-colour painting than in oil, because since water-colour is less substantial there is a closer connexion between the different layers of pigment. Transparent water-colour is nearly what oil would be if it were all glazing, and even then the connexion between a colour and one laid over it is not so close in oil

* The first painting in an experiment of this kind would of course have to be removed by sponging. I have perfect confidence in my friend's assertion, for he was an English artist of great experience, not given to hyperbole, but I suspect that he would have to take away the surface of the paper itself where the new sky had to be painted, as the foreground of the first picture would stain it a little. He would also use a thin body-colour in his second picture.

because oil varnish is a thicker vehicle than water. The elder Leslie disapproved of getting colour in oil by glazing a hue over a very different preparatory one, his principle being to get as near the hue as he could in the first painting, and this principle has since been authoritatively adopted in the schools of art as the safest for students, but it would not be maintained with the same authority in water-colour. True transparent water-colour is often little more than a delicate kind of staining. If you pass a light wash of gamboge over white paper the paper is stained yellow, and a light wash of cobalt over that produces a greenish stain. Again, it is well known that transparent colours washed one over another do not produce the same chromatic effect as if they were mixed, or anything like it.

The reader will excuse me if I do not go farther into this question of superposition. He will never really understand it unless he goes through the usual experiments, which consist in washing one colour over another in gradated bands and carefully taking note of the results. Those results are always interesting to anyone who cares at all about the subject, and often surprising. The general effect of superposition as compared with mixture is to obtain greater purity and brightness, because mixed pigments so often sully each other, but it requires great knowledge, and great faith in one's own knowledge, to plan and carry out the colouring of a whole picture on this principle, to paint blue what we intend to be purple, and red or yellow what we intend to be a neutralised or a luminous green. I will, however, mark one or two rules which are generally applicable to all superposition of transparent colours.

1. When colours are painted over their chromatic opposites they are made less intense, being to a certain extent neutralised.
2. When colours are painted over more luminous nearly related colours they appear brighter.

3. When the ground colour is gradated in one direction and the superposed colour in another an elaborate effect of counterchanging hues is produced which is often exceedingly agreeable to the eye.

Some modern painters in water-colour have been at great pains to produce effects by the juxtaposition of pure colours in a kind of interhatching. This requires infinite industry and skill, and although brilliant effects have been produced by it, I believe that on the whole it may be condemned as a waste of time. I think so for this reason. Hatching is a very poor process so far as executive expression is concerned, whereas the simple wash, with a full brush, is a very fine means of executive expression, and in my view this kind of expression, which puts the soul of the artist into his work, is a far higher and more valuable quality than the toilsome imitation of the play of blue and green in minute touches on a pigeon's neck or a peacock's tail. A great deal of admiration has been bestowed upon the birds' nests, toadstools, &c., of William Hunt, who was, no doubt, a very meritorious artist, with a cultivated sense of colour and a keen eye for the minute beauties of nature, but when you compare his workmanship, all in little streaks and spots of pigment, with the comprehensive washes of the great synthetic water-colour men, you cannot but admit that the genius of style was on their side rather than on his. Your tiny touches of pure colour side by side may look like jewels, they may resemble so many little turquoises and bits of lapis lazuli, but with all your craft they will never, though you toil at them to weariness, be the expression of intellectual energy. Such jewel-setting is like the elaboration of tinkling syllables in literature, which may be acceptable enough in some tiny poem on a subject of little interest, but would be out of place in a page serious narrative or argument.

This is not intended to condemn the use of stipple absolutely, but stipple and interhatching are not the same thin-

In true stipple the ground is left to play between the specks of added colour, in interhatching the ground is covered with a minute mosaic intended to produce an effect of mingled colour upon the eye. It has been observed already that a mottled appearance sometimes results from the subsidence of atoms of colour in the hollows of grained paper and that this is especially common when the colours employed are dark. There is an excellent instance of this in 'A Welsh Hollow by Twilight,' by Alfred Hunt, exhibited in May 1871, and now in the possession of my friend Professor Oliver, of Kew. Here all the dark blue-greys in the clouds have mottled, with fine effect, and the artist has carefully touched them afterwards with red playing amongst them beyond the mountain crest. There is no objection to this, for it produces a good effect at a reasonable cost of time, but it is certainly a waste of intellect to produce a colour by putting grains of two opposites side by side when it can be got right in hue by superposition or by mixture.*

Few painters have impressed upon me the necessity for delicacy in water-colour so strongly as Alfred Hunt. He has it in the supreme degree, and it is probably owing to this cause that although he does not often employ bright pigments, but confines himself almost entirely to quiet ochres and the like, his works are brilliant in colour as well as light. The poetry of distance, which this distinguished artist has so often conveyed to those who are capable of feeling it, is dependent upon distinctions between pale tones incomparably finer than the recognised differences in musical notation, and resembling rather those faint indescribable sounds of murmuring wind or water which come to us from afar. Besides this delicacy of tone, a real master of water-colour

* An especial difficulty in interhatching is that of carrying a gradation steadily and successfully through any large space of it. The only good if it seems to be a certain play of colour, which is not one of the most serious qualities of art.

has the art of treating the edges of colour-divisions in the most various ways so as to convey the most different ideas. Sometimes they are sharp and clear, at others so soft, so melting, so difficult to trace, that you cannot tell where one space ends and another begins. The paper may be left white in parts, and it will be impossible to say where it first ceases to be white, and where colour first blooms upon it like the earliest tinge of dawn. Again, in water-colour of the best kind, all the defects and inconveniences of the process are taken advantage of and turned into qualities. Thinness and slightness become an ethereal expression of space and air ; what in inferior hands would only be confusion and indistinctness becomes enchanting mystery ; the rebelliousness of a colour that will not wash quite perfectly is turned to account in texture. The total result is something which, though it lacks the strength and solidity of oil, is nearer to the most delicate appearances of nature. The oil-paintings of Turner and Alfred Hunt, whatever may be their other merits, are not equal in this quality to their water-colours ; still less should we compare with them the heavy studies of landscape which figure-painters often execute in the present day — studies displaying considerable science, but destitute of that close and passionate affection for the refinements of mystery and colour, without which the outer world is only so much tangible matter and can never be an enchanted dream.

It is a matter of regret that the vignette has not been more cultivated in recent water-colour. It has the advantage of being able to deal successfully with many interesting things in nature which do not supply material enough for a picture, and as we always see nature itself in vignettes they are one of the most rational forms of graphic art. The melting away of the objects into nothingness round the edge of the drawing is in itself poetical, because it reminds us the evanescence of our own impressions in memory ; a perhaps, also, it may more distantly recall the condition

human knowledge generally, in which a few things, comparatively well seen, are surrounded by things seen less and less distinctly, which in their turn are bounded by a blank. Whatever may be the cause, there is something poetical in the vignette, something in the mere form of the drawing which inclines the artist to see things with a poet's eye. Turner was sometimes prosaic in oblong drawings, but hardly ever, to my recollection, in a vignette ; whilst many artists, far inferior to him in feeling, have been lifted above their more commonplace habits of thought by the demand for grace and elegance which the vignette seemed to make upon them.

It is time now to examine the water-colour palette, but, as we have gone fully into the choice of pigments for chromatic reasons in the chapter on Oil-painting, it will not be necessary to investigate that part of the subject a second time. The reader will find in that chapter a full account of the principles on which palettes must be arranged, and on which they always have been arranged, unavoidably. He will see that there is no triad of pigments from which all tints in nature can be composed, that a palette is never and can never be chromatically complete unless it contains both dull and brilliant pigments ; and that, although it is by no means essential to chromatic completeness that they should be very numerous, it is not possible, however great the genius of the colourist, to obtain all the hues of nature from an exceedingly restricted palette. I have shown that the pigments have to be chosen in obedience to a certain law, to which artists unconsciously conform, and which results from the nature of their materials, and I have given lists, progressively more and more numerous, of pigments which associate helpfully together and may be used without risking durability.

It remains only to point out certain differences in the use

of the colouring substances employed in oil and in water. The palettes used may be essentially the same in both arts, but it so happens that certain pigments can be used more conveniently, or with less likelihood of subsequent deterioration, in one art than in the other.

All the varieties of white lead have to be rejected in water-colour, as they are liable to blacken unless protected by oil or varnish. The white made from barytes is the best of those known to us hitherto. It passes under the name of Chinese white. We have seen that Müller 'ground up his white himself, and used simple chalk and a little gum,' an objectionable medium because it is transparent in use and opaque after it has dried. Field says that whitening is a basis 'of many common pigments and colours used in distemper, paper-staining, &c.'

Naples Yellow is objectionable in water-colour for the same reason as the lead whites, being 'liable to change even to blackness by damp and impure air when used as a water-colour or unprotected by oil or varnish.' Gamboge is a well-known water-colour yellow very little employed in oil for which it is much less suitable. It dissolves in water naturally. Samuel Palmer said that it had stood for thirty years of exposure to ordinary light when laid on thickly, but that when thin it fades slightly. He used washed gamboge also, and said that the washing removed the greenish gum from it and rendered the colour more opaque. He did not use Indian Yellow, and one hesitates about recommending it because it is said to be not lasting, but Mr. Wyld believes it to be quite sound, and says that 'nothing replaces its brilliancy.' It has stood quite well for forty years in his drawings.*

Water-colour painters often use indigo, another color

* It is very difficult to reconcile this fact with Mr. Linton's assertion that Indian Yellow belongs to the most evanescent class of colours. Give both sides of the question, and decline all responsibility.

which is not considered permanent, indeed Mr. Linton says that 'it fades rapidly in the light.' Prussian blue, which the same authority includes amongst rejected colours, is used by some water-colour artists who are very careful about permanence; for example, Samuel Palmer used it.

Emerald Green (*Vert Véronèse*), also used by Palmer, is more eligible for water than for oil, but must not be mixed with Cadmium. Palmer liked the mixed green which Emerald Green gives in combination with Raw Sienna.

Sap Green is exclusively a water-colour pigment which is much employed because it is delightfully transparent, of a fine colour, and very pleasant to use, but it ought to be rejected, in spite of all these attractive qualities, as it attracts moisture, is liable to mildew, and is not durable.

Bistre is excellent in water. Palmer called it 'a grand colour, the Asphaltum of water-colours.' Of sepia, which also belongs specially to water-colour, he said that William Hunt was believed to have got in the light and shade of his drawings with that pigment and blue.

Indian Ink has been employed much in water-colour, and a stick of it used to accompany the cakes in boxes before moist colours were invented, but now it appears to be rejected for strong blacks in tube. The qualities of it have been described in another chapter.

This is all that needs to be said especially about pigments used in water-colour. It has been observed already that there are great differences in the facility with which the different materials may be used, because water-colour of the transparent kind depends on washes. For example, a gamboge wash is facility itself, whereas ultramarine, as Palmer said, 'almost requires an apprenticeship to learn how to wash with it.' There is no necessity for criticising the pigments one by one with reference to this quality, as it is soon ascertained by experiment, and, besides, there are differences in the same pigment when it is more or less thoroughly ground.

Water-colours are sold in four forms, in cakes, pastilles, pans, and tubes. The cake system is the oldest, and it has the advantage of keeping the pigments ready for use an indefinite length of time, but it is often a vexatious interruption to work, especially in the heat of inspiration, to have to rub a cake patiently on a slab. It may be endured in the quiet of the studio, but in the hurry of sketching from nature it is intolerable.

The pastille is a French system, much liked by some artists who use French colours so prepared, though English pigments are believed to be of superior quality in themselves. Pastilles are thin round cakes, an inch and a quarter in diameter, which are between the old hard cake and the modern moist colour as to softness. They can be handled without soiling the fingers, and yet they easily give off colour on being wetted. The custom is to fasten them in little recesses sunk on purpose for them in the box, and to take the colour with the brush. The objection, of course, to this habit is that one colour soon gets upon another as the brush transfers touches of pigment from place to place, but if the brush is often washed and if the pastilles themselves are washed from time to time the inconvenience is not very seriously felt. Besides this some artists of experience maintain that in water-colour (though not in oil) it is not an evil that pigments should be very much intermixed. Mr. Wyld is attached to the pastille system and mixes all his tints as they come easiest to hand, and with the brush, never troubling himself about any methodical arrangement, and working in perfect unconsciousness of *how* the tone is got or with what materials. I have said already that there are two exceptions, Yellow Ochre and Cobalt, which Mr. Wyld keeps in a state of purity somewhere, but the rest of the box and palette is always in a grey russet muddle, and out of this general muddle or a fusion of tertiary tints the painter gets all his most delicate greys and finest neutral masses. The tints, which are quite

really and truly dirt upon the palette, and unworthy of any higher title, become pure and powerful colour when set in their places in the picture: such is the magical effect of neighbourhood upon hues. Sir John Gilbert uses papier-mâché palettes with an enamelled surface, and he has three or four of them all dirty at the same time and never cleaned; a space may be cleaned occasionally when required for pure colour, or for some definite fresh mixture, but the palette itself is not.

The pan system is simply that of putting moist colours into little porcelain trays from which they are taken up by the brush as required. This system came into favour on account of the facility afforded by it for working from nature before tubes were used for water-colour, and it appears to have held its ground, as moist colours in pans are still constantly advertised by the colourmen. In convenience it resembles the pastilles, except that as the colours are in a much softer state they are still more easily taken up with the brush. Samuel Palmer expressed a strong dislike to this system, on the ground that it wears out the brushes, and is very dirty, for the colours necessarily get sullied one with another, besides which it is impossible to get a sufficiently large amount of colour out at once for certain purposes.

By far the most convenient system ever invented is the tube system, adopted from oils. Unluckily it so happens that water-colours in tube, as they are usually prepared, get hard after a time, and can no longer be expelled by pressure. The different pigments differ very widely in this respect, for some of them, such as French Ultramarine, Cadmium Yellow, and Yellow Ochre, can be kept almost indefinitely, whilst others, such as Chinese White, Lemon Yellow, Naples Yellow, and Rose Madder, solidify in a few months. I see that a colour-maker now advertises moist colours in tube which are said to be specially prepared so as to avoid this inconvenience and to be serviceable even in hot climates. If this

really is so they will be a great addition to the comfort of painters in water-colour. Meanwhile there is still the resource, adopted by Samuel Palmer, of having those pigments in tube which keep well and a reserve of the others in cake.

It is not generally of very much practical use to tell amateurs and young artists how they ought to mix their colours, because it is impossible to remember the receipts for several hundreds of mixtures such as may be found on any dirty palette, where they are infinite. The proper way is to learn a few very simple principles of mixture, such as these : If you take a pigment, no matter which, and make experiments with it, you will very soon discover, if you are observant, that it has special affinities with some other pigments, by which it can be easily and pleasantly modified, just as in language a word will go naturally into some inflexions and more awkwardly into others, or as, in anatomy, there is a certain morphology by which we pass quite easily from certain animal structures to those which immediately follow them. I may take as an example the action of Vermilion upon Yellow Ochre. If you add a little Vermilion to Yellow Ochre you do not neutralise it, but simply modify it and turn it into Red Ochre at once. If you add a little black to French Ultramarine the blue is not spoiled, but darkened and made less intense ; in fact, it becomes very like Indigo. Cobalt is supposed to be blue, and so, no doubt, it is, but a blue so nearly on the verge of green that an atom of yellow greens it immediately. By going through the pigments in this way you discover that they have certain affinities and sympathies, and you find that they can be arranged by these affinities not only in pairs but even in triads. You find out also that pigments have antipathies, that, as they are pleasantly modified by those they like, they are fouled by those they dislike, and the time that you have gone through a great many experiments the principle of modification will be quite clear to you — I mean that you will be able to get this or that quality¹

mixture exactly as pigeon-breeders do. The knowledge of this is worth any quantity of receipts, which are seldom applicable to the case in point, for the slightest change of effect in nature will make a receipt useless. However, as the reader may expect to find a few examples of mixed tints, I give him the following, which were communicated to me by Samuel Palmer :—

' In sketching skies, Cobalt may be used over Orange Cadmium, or, if the paper is brownish, Cobalt with a little white. A very little Orange Cadmium tones the Cobalt agreeably when you use white paper.

' For grey, as in clouds, Cobalt may be used with Light Red ; for a rather more purplish tint, Cobalt with Venetian Red ; if the tint is required to be still more purple, Cobalt may be used with Indian Red. Prussian Blue instead of Cobalt with these reds will make greys also, but on a deeper key and less bloomy. For a *very* purple grey, Cobalt may be used with Brown Madder, and if it is desired that it should be on a deep key, Prussian Blue may be used with the Madder instead of Cobalt.

' Cobalt and Cologne Earth make a tint useful in twilights. Darker greys may be made of every variety of hue by mixing the cool greens with the madders.

' Cobalt, Light Red, and Yellow Ochre, are very useful pigments for distances. With these three pigments eighteen tints in the list of prismatic opposites may be made. These greys will do for tree-trunks, rocks, earths, &c. A very good ground colour for greys of roads, tree-trunks, &c., is a wash of Vandyke Brown. For the most delicate greys, Cobalt and Yellow Ochre may be used with Pink Madder.

* The following combinations make valuable greens : — The green Oxide of Chromium with Raw Sienna makes a beautiful sober green. Emerald Green and Raw Sienna make tints like the beautiful natural greens of trees, and allow you to have them more less yellowish, as you want. For the green of trees in spring, after drawing them in pencil, either wash them with Emerald Green and glaze with Raw Sienna (or *vice versa*), or else mix the tint on the palette. Prussian Blue and Burnt Sienna make a good olive

green for the darker modelling in trees. A deep green may be got by the union of Gamboge with Prussian Blue and a very deep cool green by mixing Prussian Blue with Vandyke Brown. Gamboge and Ivory Black give a very deep green. Gamboge and Bistre give a deep, greenish, golden brown. Ivory Black and Raw Sienna supply a very deep colour inclining to green, which is very useful. All these greens are convertible into browns by glazing or inter-hatching, or by adding red; for instance, Burnt Sienna may be added for a warm and strong tint, and Pink Madder for cooler and retiring tints.

'A good ground colour for gold cornfields is Orange Cadmium with a little white.'

Field said that a water-colour painter should use nothing but distilled water, and next to that filtered rain-water. It is very often impossible to wash certain colours with hard or impure water. Samuel Palmer recommended the student to use, if possible, four waters — 1. For white for cool mixtures. 2. For white to be used in warm mixtures. 3. For warm colours. 4. For cool colours. Few artists would have patience to distinguish between them, but they might, at any rate, have arrangements for changing the water frequently.

Opaque water-colour has made great progress from the days of Paul Sandby to those of Sir John Gilbert. Sandby's work was bold and rather coarse, essentially like scene-painting (as in the 'Ancient Beech-tree,' at South Kensington), and not at all rivalling oil; whereas, Sir John Gilbert's work really has most of the qualities of oil.

He uses tube colours on a palette, sometimes without diluting them, using the colour thick and strong as it comes out of the tube and requiring hog brushes, often of a good size, to master it. He has a preference for these manly instruments. When the colours are a little diluted he uses beer stale ale as a medium, and also a wax water megilp prepared by Reeves of Cheapside. 'A little on the palette,' he says 'to be taken up by the tip of the brush, gives great strength.'

richness, and force to the colour ; but it must not be used so much as to make the surface shine when dry.'

This is the most substantial kind of water-colour painting known. It is as nearly as possible the same process as oil-painting, since it includes glazing, scumbling, and impasto ; and Sir John is not satisfied without approaching the depths of tone and the richness of surface which he aims at in oil itself.

Artists have sometimes been blamed, in what seems a narrow-minded spirit, for using opaque water-colour, as if there were something wrong in it. There is no valid reason whatever against its employment, but the question may be reasonably asked why, instead of rivalling oil with an aqueous medium, the artists who have conquered that difficulty should not simply paint oil-pictures ? Is there any especial quality in opaque water-colour which oil does not possess ?

Yes, there is deadness of surface, but this is only applicable to drawings preserved in portfolios, for (as we have seen in the Raphael cartoons at Kensington and some frescoes at Westminster) the good of a dead surface is sacrificed when a glass is put before it. Opaque water-colours may be more easily lodged than oil pictures, as they can be kept in cabinets — a great advantage for studies. I am inclined to believe that the practice of this kind of water-colour merely for purposes of study would be very convenient to oil-painters, who often find themselves unpleasantly embarrassed by ordinary transparent water-colour, because it is too remote from their own habits, which might be continued in Sir John Gilbert's opaque process with only this difference that it does not permit so much deliberation as oil. I have tried it, not as a pursuit but simply as an experiment, and have found after working a few days in it that as there were hog-tools, and tube-colours, and a palette, with the possibility of loading, impasto, scumbling, and glazing, the whole process felt so like oil that it required an effort of memory to be sure that it was something else.

Sir John's Gilbert's palette is composed of Chinese White, Yellow Ochre, Raw Sienna, Burnt Sienna, Brown Ochre, Light Red, Venetian Red, Indian Red, Vermilion, Indian Lake, Antwerp Blue, Prussian Blue, Indigo, French Ultramarine, Cobalt, Vandyke Brown, Ivory Black. He adds bright yellows, extract of vermillion, &c., when required. An important point in Sir John Gilbert's practice is that he paints his backgrounds first, up to their full force. He strongly advocates this because it compels the artist to paint the figures with all the force he can ; whereas if the figures are painted first on a white background, it is most likely that they will have to be gone over again to keep the background in its place, or else the background will be painted weakly on purpose to prevent it from coming before the figures.

In this, as in all opaque processes, it is of the utmost importance that the touches by which vigorous accent is conveyed should be left absolutely undisturbed, as, if they are meddled with they lose their special virtue.' It follows that they should be established from the first in right chromatic relation to the work that lies beneath them. The crispness and decision of these touches may be but little interfered with by a glaze, but it should be applied rapidly and not so as to dissolve any of the opaque pigment.

I cannot leave water-colour painting without speaking of the papers used by artists, though the subject is an extremely difficult one, for this reason : All hand-made papers are liable to inequalities of manufacture, so that if I were to recommend any one of them strongly it might easily happen that a new supply of what was nominally the same paper did not bear out my recommendation. I am told by an old painter in water-colour that it is not possible in the present day to paper anywhere which will stand rough usage (such as painter who corrects much will inflict upon it), as well as certain English papers manufactured in the early years of the present century. Very fine, thick, rich-looking papers, wi-

admirable surfaces, rough or smooth, may be procured from the artists' colourmen ; and here I come back to advice already given about colours, that is, to try experiments, for no artist can act with safety on the recommendation of another. These things are affairs of idiosyncrasy. A man is so constituted at his birth that he will naturally have an affinity for a particular kind of paper, and be able to make very good use of it, whereas another will condemn it as unserviceable. Creswick liked one sort of paper, Harding another, Cattermole a third ; the manufacturers tried to please them, and made papers which bear their names. Some fine papers bear the famous name of Whatman, the manufacturer, others that of Canson, the French maker, of Annonay. The Creswick and Harding papers are rather absorbent, both toned sufficiently to take off the crudeness of pure white. The Harding is of two kinds, one very strong, with a considerable tone and a diagonal grain broad and visible, the other much thinner, paler, and with a fine grain. Cattermole had a paper made to imitate (in a superior quality) a kind formerly used by the wholesale grocers, which was found good for sketching upon with opaque colour. The Cattermole is a light brown, but still darker in tone than the ordinary tinted papers. Canson makes a considerable variety in greys and cream tones, and his large paper in rolls is very good for monochrome sketches done to be photographed, but the white of it is too chilly for works in colour. It may be accepted as a principle that although paper for water-colour may be what is called white it should not be chilly ; it may have the whiteness of newly-cut ivory, but not that of snow under a grey sky. Samuel Palmer held the theory that amongst pigments Flake White not like light, but is in *hue* a cold shadow colour, though a very light pitch. To make it resemble light it requires be scumbled when dry with a creamy tint of itself mixed th a little orange or golden yellow. So it might be mainined that chilly white papers are not really neutral, but have

the nature of shade, and as an artist likes to be helped by his paper instead of hindered, he is wise to avoid them.

As to the grain of papers, I think it may be considered a settled question that, although there may be reasons for employing *papier vergé* (that with parallel wire-marks) in charcoal drawing, it should be avoided in water-colour, as the pigments settle in the hollows and make unpleasant lines. Even the more broken diagonal grain of Harding's paper is less agreeable than the scattered grain of the Creswick, which leads the eye in no particular direction. Papers are made of the most various degrees of coarseness in grain, and artists of great refinement have often used very coarse papers, just as Leighton chose a very rough mortar for his painting of the 'Arts of War,' but it is a safe rule to avoid coarse papers in small works. Turner even used Bristol boards for his vignettes, as ivory is used for miniatures. In large works it is different ; in them coarseness has a practical use by preventing a too perfect sharpness of edges, which become as sharp as it is desirable that they should be at a little distance.*

When body-colour is employed freely the paper is generally tinted, and it is better to have the tint either decidedly warm, as in the yellow *papier Buhl*, or else decidedly cold, as in the French grey papers. All painting is founded upon the contrast between warm and cool colouring, and if your tinted paper gives one of the two quite decidedly, it will help you for half your work, your own business then being to counter-

* The reader may like to know that a coarse paper can always be turned into a smooth one, in parts where the artist desires it, by the use of the burnisher, and if in large spaces by the roller of an etcher's press. You can burnish the space occupied by faces and hands, or you can have the coarseness taken out of the paper for a sky, whilst you preserve it a foreground. If any reader is disposed to undervalue the importance a grain in papers used for water-colour, let me remind him that the greatest painters in oil have liked coarse canvases, which they made smooth intentionally in certain parts by putting pigment enough up them to fill up the spaces between the threads.

act its influence by colouring in the other half. Since, however, it happens that the opposition between cold and warm colour is seldom equal in the same drawing, which will generally, taken as a whole, be either a cool drawing or a warm one, the best way seems to be to use one or the other kind of paper, according to the predominance of heat or coldness in the general scheme of the work. Turner was exceedingly fond of grey, even of dark grey. A living artist has made a large collection of rapid sketches on a beautiful grey note-paper. In landscape, grey papers help greatly in large spaces of sky and water, under cool effects, such as those of rainy weather.

It is well to remember that the artist himself has always the resource of tinting white paper with a tint of his own mixing, which may be of any hue that he prefers. This was constantly done by the old masters for their silver-point drawings and other works. Turner did it for a certain class of bold sketches, in which he freely employed black chalk for guiding lines, transparent water-colour for shades, and either body-colour or knife-scratching for his lights.

This chapter ought not to come to an end without a few words on brushes, but it will be unnecessary to tell the reader that the brushes commonly used in water-colour are either camel-hair or sable. Men who are accustomed to work in oil make more than occasional use of their own tools — sables, badger-hair softeners, and even hogs' bristles — in water-colour also, and often with excellent effect. I may observe that a large camel-hair brush, if it comes to a fine point, as it ought to do, is in itself both a broad tool and a delicate one, for it will give either a broad wash or a delicate one, and a complete sketch may be made with it. All brushes should be kept with the greatest care and in perfect cleanliness. A good recent invention for the protection of brushes used for sketching from nature, is the sliding handle, by which they are withdrawn into a tube when not in use, on

the principle of the pencil-case. Samuel Palmer was so careful to preserve the elasticity of his brushes and the quality of their points, that he would not use them for rubbing up any colour that had dried upon the palette, but did it with his finger, and only used the brush when the pigment was ready.

Comparison of Water-Colour with Nature. — The practice of transparent water-colour has been so closely connected with the study of landscape directly from nature, on account of the convenience of the process, which is cleanly and rapid, and of the facility with which studies made by it can be carried and preserved, that we might infer a peculiar technical adaptation to landscape. There are, no doubt, in the processes of transparent water-colour, certain conditions which are highly favourable to some landscape effects, such as the misty and cloudy effects which are common in the mountainous parts of our own island, but if you take landscape nature as a whole, including massive substance as well as aerial appearance, I think it must be admitted that oil-painting will approach more nearly to its qualities. There is, however, one special advantage in water-colour, which is, that when rightly followed it encourages great delicacy of observation, so that a highly-trained water-colour artist will see many refinements in natural landscape which the more powerful oil-painter may very easily overlook. Besides, the mere fact that a kind of painting is less powerful than another is not at all a reason why it should not be practised. The excessive love of power in the fine arts usually either comes from sheer vulgarity, which always wants strong sensations, or else from inexperience and ignorance of what has been done, the s of ignorance which is unable to see the distinction betw delicacy and weakness. It is not at all necessary that a kin of drawing or painting should have the force and solidity nature ; it is far more essential that it should allow of -

mated artistic expression, and in this transparent water-colour has few rivals.

Opaque water-colour approaches much more nearly to the force of oil in the imitation of natural objects, and is therefore a better means for the study of tangible things — such as rocks, vegetation, and even living bodies. The surprising truth which may be attained in the representation of nature by opaque water-colour is proved by the works of John Lewis, in which object-study is carried to the utmost limit attainable by keen sight and imitative faculties of the highest order. Object-studies in the same materials, of far inferior excellence to these, would still be most valuable possessions even to a painter in oil. I am speaking, just now, of truth only, and of a special kind of truth in the representation of tangible objects seen clearly and close at hand without the glamour of any visual enchantment. Such work has the sharp clearness of the best old tempera painting, which is not suited to everything and is incapable of dealing with the varieties of natural effect, but which, nevertheless, presents with extreme precision every visible fact of structure.

A third kind of water-colour, composed of transparent and opaque work at the artist's discretion, is better adapted than either of the preceding to the exact rendering of nature, because in nature itself we are constantly meeting with objects and effects in which transparency and opacity are visible side by side, or one of them above or through the other.

CHAPTER XXIII.

PAINTING ON TAPESTRY.

IT very rarely happens that an imitation is superior to the thing imitated, but so it really is in the case of painted tapestry, certainly a higher kind of art than the costly manufacture for which it is a comparatively cheap substitute.

Woven tapestry is a slow and tedious copy of a drawing without any of the intellectual or manual freedom enjoyed by the artist who made the original, but as it is one of the most expensive of all manufactures it is prized for the associated idea of wealth, and there is a certain poetry connected with it, because it was used in princely and baronial houses in the ages most frequently chosen by poets for the scenes of their inventions. Tapestry of the old-fashioned woven kind is a poetical 'property' in Shakespeare and Scott, whilst the proof that it has not lost its charm and interest is that the most recent of our poets, Matthew Arnold and Morris, have also made good use of it.

But although there cannot be a doubt that woven tapestry, especially if it be old, is a poetical kind of wall-decoration, there is a certain inconsistency in the world's ways of regarding this and other forms of copied or translated art. People have a feeling of contempt for copies done in oil from pictures in oil—a contempt so sincere that they will not buy them, except very low prices, and although a museum of copies done by all men would be interesting in the absence of the originals, the attempt made by Thiers to found such a Museum in Paris was discouraged and discontinued. On the other hand, a copy

tapestry from a distemper cartoon was valued more than the original, though it could not be so exact as if it had been done in the same material, and at the very time when the Museum of Copies was abandoned the French Government was paying for copies in tapestry from portraits in oil, the tapestries to fill panels in the Gallery of Apollo in the Louvre, and the originals to be given, when done with, to little provincial museums.

What is woven tapestry composed of? Simply of dyed threads placed side by side. But, supposing that the tapestry were woven all in white threads at first and that they were dyed afterwards, with a brush, would not that be exactly the same thing and less troublesome to make, if the artist, instead of painting a distemper cartoon on paper, did his work in dyes on the white tapestry itself? Besides this, would it not be better to have the artist's own original performance on the tapestry than an imperfect copy of it made by weavers with many threads? These questions suggested themselves to some artists who knew the value of original work in art and appreciated the decorative effect of tapestry at the same time, and their answer was to make a series of experiments which led to very remarkable results.

Canvases are now made of any size and exactly like tapestry in quality of material, so far as the eye can judge. They are very different in texture, so that the painter may choose that which answers most exactly to the nature of his intended work. The white tapestry to be painted is stretched on a frame of wood much in the same way as the canvas for a picture, and the artist begins his labour by a drawing of the whole subject, generally pounced with charcoal dust from a pricked outline on paper of the same size. After having removed the cartoon he draws all the outlines completely on the tapestry itself with a pointed brush and thin colour. The tapestry is shaken to get rid of the charcoal and is now ready for colouring.

The colours for tapestry-painting are all used as glazes. As I have explained elsewhere, a glaze has nothing to do with shine

of surface, as is often imagined, it is simply called so because it is transparent, like coloured glass. In tapestry painting the pigments never shine, they are as dull as fresco, but at the same time they have no body and no opacity. They are, in fact, as nearly as possible like the most transparent water-colours. They are all liquid dyes, and kept in glass bottles with stoppers. They include all pigments necessary for the production of complete colour. The palette is replaced by a little table that can be raised or lowered to the required height, covered with little pots of liquid colour arranged in chromatic order, with a slab slightly hollowed in the middle for mixtures. The brushes are of hogs' hair, and some of them are short, almost like stencilling brushes. The diluent is a solution of picric acid in water, and a solution of hyperchlorite of potash is used to remove colour that has gone wrong.

The process, as in transparent water-colour, fresco, and water-glass painting, is from light to dark. The tones are all pale at the beginning, every glaze that is added darkens them, and the strongest darks are reserved for the end of the work. The principle of superposition is much acted upon ; I mean that the first colour laid is often very different from what the final colour is intended to be.

The result is technically just like woven tapestry, but artistically it is greatly superior, because it has the freedom and energy of original painting as well as the exact colouring which the artist himself desired. His drawing retains all the accents he put into it, just as he intended, without the omission of those not noticed by the weaver or the exaggeration of those which attract a workman's attention.

The closeness of the technical resemblance to woven tapestry is proved by the new way of mending old woven works. The bad parts are cut out, and then a new *white* tapestry selected exactly of the same texture and with the same numl. of threads to the square inch. This white tapestry is cut in pieces which exactly fill up every hiatus, and these are insert

like white wood in *marqueterie*. The tapestry being now thoroughly repaired so far as material is concerned, it is stretched on a wooden frame and handed over to a painter, who first continues the drawing of all the forms across the white spaces, joining all the interrupted lines, and then by repeated applications of transparent colour with the brush so dyes all the white tapestry that it becomes indistinguishable from the old. As woven and painted tapestry are close together in works so restored there cannot be a severer test.

Since this kind of painting is entirely in transparent colour it can never present anything like the solidity of oil, so that a dead oil-painting on coarse canvas may be preferred when a massive appearance is desired, but painted tapestry has an incomparably more comfortable appearance, and is therefore much better adapted for the decoration of rooms which are to be inhabited, especially in northern climates. The painting on the tapestry does not diminish its softness or suppleness, it simply dyes the threads of different colours.

It is hardly necessary to observe that painted tapestry allows all the dignity of composition which may be given to fresco or any other form of graphic art. It also admits great variety and beauty of colouring, but the artist has not the resource of variety in surface and texture, because the surface and texture are always those of the tapestry itself. Neither has he the advantage of great depth and transparency in shade as in oil-painting. On the other hand, his work is quite free from the defect of shining, so that it can be seen from any point of view.

Some idea of the value of this kind of art may be got from the reflection that if Raphael had painted his cartoons on the tapestry himself the works would have preserved all the grandeur of composition and nobility of style which the drawings now possess, with the advantage of a richer material. Again, since tapestry is easily removed, there are better chances for its preservation than for the keeping of any work on plaster. If Leonardo's 'Last Supper' had been painted on tapestry we might have had it safe in England now.

The art is so recently introduced, or rather it has been so recently brought to technical perfection, that there are not as yet very many works of considerable importance to refer to. Some English artists have tried the new art, and, I believe, successfully, but it so happened that I did not see their exhibition. The first exhibition of painted tapestry in France was held in the *École des Beaux Arts* at Paris, in May, 1881, and that gave me an opportunity for a close examination of technical results obtained by artists of the most different character.* The two most important classes of work might be called the barbarian and the aesthetic. The barbarian, admirably suited for decorating the country-houses of the nobility, consisted of hunting scenes, with dogs, horses, and wild boars ; the aesthetic, intended for persons of some artistic culture, represented ideal figures. Besides these two classes there was a third, bearing reference to literature, and a fourth, illustrating religious subjects, but these tapestries were not numerous. Almost all had ornamental borders, designed by the painters themselves, and generally with clever and tasteful invention ; indeed, the borders had great decorative interest of their own.

What struck me most in the barbarian class of subjects — the hunting scenes by MM. Princeteau and De Penne — was the great degree of animation which existed, not only in the creatures represented, but also in the workmanship. It was quite evident that the material had not been, in any way, an impediment to mind or hand. The tapestries were just as lively in execution as water-colour sketches on paper, and yet they were of large dimensions. A boar-hunt on rocky ground, by De Penne, measured twenty-three feet by eleven, whilst the *Sanglier au Ferme*, by M. Princeteau, was nineteen feet high, including the border. It would be impossible to find a more appropriate decoration for the hall of some great hunting château. T

* The first attempt in this direction was made in 1865 by M. Guicha, founder of *l'Union Centrale*. The idea was afterwards taken up by Létorey, who got well-known artists to work it out.

scheme of colour, more vigorous than refined, was carried out quite consistently, betraying neither error nor effort; indeed, throughout the exhibition the colouring was much less offensive by crudity than in the Salon of the same year, which seems to imply that tapestry has a softening effect upon the transparent colours employed. In some of the tapestries the colour attempted was of a much more delicate order than that employed by M. Princeteau. For example, M. Hippolyte Dubois had a figure, entitled 'Coquetterie,' in a pink drapery on a pale gold-coloured background, with grey and darker yellow, inclining to brown, in the border; and a religious triptych, by J. Meynier, was all kept purposely in pale tones with hard, clear, delicately drawn outlines and chocolate-coloured borders with very delicate decorative leaf-drawing upon them. The subjects of this triptych were the Visitation, the Annunciation, and the Flight into Egypt, treated strictly on the principles of mural painting. Tapestry of this kind would be quite suitable for the decoration of churches, and be much less cold in appearance than any kind of painting upon plaster. By way of contrast, there were two vulgar but vivid and powerful illustrations of Molière, by Mazerolle, oppressively lively for a private house, but not ill-suited to the *foyer* or entrance-hall of a theatre. The scheme of these tapestries included vivacious expression and strong opposition of colour, with forms intended to be more amusing than beautiful. There was a fine serious work by Luminais, eleven feet high, representing a gentleman of the time of Louis XIII. riding a powerful grey horse at full trot through gloomy woodland scenery. This painting was founded upon light and dark rather than colour, and the gravity of it was maintained by the serious, almost stern, expression of the face.

Besides serious art of different kinds, and broad comedy, and illustrations of sylvan sport, the exhibition included examples of pretty drawing-room art on a smaller scale and finer materials, kind of art more suitable to feminine than to masculine taste, in which may often display great knowledge of form and the

most consummate skill in composition, as well as the most refined elegance of fancy.

Only one point of importance remains to be noticed. I observed that a very few artists, not content with the effects of the mere painting, heightened them at last by brilliant touches of light or colour in embroidered silk. This destroyed both the sobriety and the harmony of the works where it was applied, and was really a degradation of the art, as gilding is in an oil-picture.

The best method of painting on tapestry is that in liquid colours which I have described, but tapestries, or at least unprimed canvases, have been painted so as to show the texture of the cloth, and preserve a dead surface, by several other processes.

It can be done in pure tempera, used thinly, and on cloth entirely unprepared by any coating of gesso, but this process is not to be recommended.

It can be done on a sized cloth with ordinary oil colours and a solution of white wax in turpentine for a medium, but the colours and wax have to be used in great moderation, and they do not look transparent, nor have they the quality of dyes. This is more a severe kind of decorative painting than an imitation of tapestry.

Oil colours used as glazes, with turpentine only for a diluent, on canvas or tapestry slightly sized, may give fairly good results. I learn also, from M. J. Godon's treatise on tapestry painting, that some artists have employed the true method with liquid colours and then dragged or dry-touched upon the tapestry with thick oil colour, catching the tops of the threads, just as painters often do on oil-pictures. This mixed method is objectionable, because it abandons the true principle of the art, which is that of a stain or dye drunk up by the threads of the tapestry, and simply colouring them without any perceptible addition to their substance or alteration of their nature.

If this book should happen to fall into the hands of a

reader having influence in matters concerning our public buildings, I would suggest to him that perhaps painted tapestry might be one of the most suitable forms of decoration for a public building in England. It would not be expensive, unless the artists charged exorbitantly for their time; and if the painting when executed and hung turned out to be a disappointment, it might easily be removed and replaced by another, which is not the case with any kind of wall painting. It is perfectly suitable for the decoration of large spaces, and though it has not the brilliance of fresco, it may be equivalent to it in nobility of style. It can be seen, like fresco, from any point of view and in any light of sufficient intensity to show the colour. I have already alluded to one quality in which it is greatly superior to fresco, and that is the appearance of comfort which it gives. Nothing so effectually as tapestry takes away the air of chilliness from a large room, as our ancestors well knew when they employed it in the rooms they lived in. In winter, that is to say, during about five months of our year, this quality would greatly enhance the pleasantness of an English public building. Lastly, as to duration, there is every reason to suppose that painted tapestry, if the artist has employed safe colours, will last for many generations, certainly as long as any other kind of tapestry, and at the end of its time posterity might replace it. Whilst writing these lines I have been thinking of a certain place in which, as it seems to me, painted tapestry would be most appropriate, and that is St. Stephen's Hall at Westminster, a hall surrounded with large panels, now vacant, but once intended for frescoes. These panels would be the very places for a set of painted tapestries illustrating the history of England. They would have just the same historical interest as any other kind of painting, and give a habitable appearance to the place, which would go far to counteract the chilling effect of the white statues. Even in Westminster Hall a line of large tapestries would not be out of place, though as the light is not very strong here they would have to be painted in rather a high key, and

very decidedly on the principle of clear and distinct mural decoration.

Comparison of Painted Tapestry with Nature.—In oil-painting on coarse canvas the texture of the canvas is only shown so far as it may be useful to the effect, as it can easily be hidden, when required, by a certain thickness of impasto, but the texture of tapestry is equally visible everywhere, and explains itself as a woven fabric, so that illusion is hardly possible. Another illusion-destroyer is the way in which tapestries are usually hung by simple suspension from their upper edge, without being stretched tightly on a frame, so that the edges of the material are seen, and if there are any little curves in them, or any creases or bulges on the tapestry itself, the material is before us as a tangible object, like a carpet in a shop-window, and not at all as an opening through which we behold figures or scenery. Again, the custom of painting borders round tapestry, which is an excellent custom from the decorative point of view, and one that ought to be maintained, is very injurious to the effect of illusion, because the border, though there may be relief in it, is always a flat thing taken as a whole, without perspective, and enclosed by rigid lines, yet we see that it is part of the tapestry itself, and not a frame, so that we understand the rest of the tapestry to be flat also.

Some of these objections disappear when tapestry is nailed to a stretching frame and sunk in a panel, the border being replaced by the mouldings of architecture or of wood-work. The portraits in the *Galerie d'Apollon* at the Louvre, which were woven at the Gobelins, produce an effect which is almost illusory. Strangers always take them for paintings, and even as paintings they have a more than ordinary resemblance to the popular conception of nature, because they are very animated and in very strong relief. If this can be done in woven tapestry, in spite of all the difficulties of the loom, it can be done still more powerfully by a painter. If such an effect is desired

the tapestry must always be hung high enough, or in a place sufficiently inaccessible for the texture of the cloth to be invisible.

Whilst noticing these qualities for the degree of importance which may belong to them, I am still firmly persuaded that for a decorative art, such as this, any illusory kind of resemblance to nature is undesirable. If we look upon painted tapestry as a kind of mural decoration it is not a disadvantage, but the contrary, that the true nature of the stuff should be clearly seen, so that the spectator may at once perceive that the room is hung with tapestry, after which he may proceed to admire the beauty of the design. It is not desirable, either, that the imitation of nature should be carried so far in minute fidelity as painted tapestry allows, for it would be easy by transferring a skill acquired in other kinds of painting to this — it would be easy for a skilful student of objects to give them a degree of relief and reality which would put an end to the reserve and sobriety of decorative art. Although tapestry painting can never have all the reality of oil-painting on canvas it can have more than enough for its own purposes, and it is always wiser to keep within the realising power of a graphic art than to make use of it to the utmost.

CHAPTER XXIV.

WOOD-ENGRAVING.

OF all the graphic arts wood-engraving is the most extensively spread abroad throughout the world, yet at the same time it is less understood than some arts which are much more rarely seen, and its practitioners, by a strange fatality, generally spend the greater part of their time in endeavouring, at the cost of the most tedious labour, to convey a false conception of the nature of their own work.

What is most lamentable in this condition of things is that, if wood-engraving were followed according to the laws of its own nature, instead of being followed in direct opposition to them, it would be at the same time a higher art intellectually, an easier, less laborious art, and also a much more beautiful art than it generally is at present.

Suppose that you have to write a letter. You take a sheet of white or toned paper and dip your pen in black ink. You then write away rapidly and your pen leaves the black fluid wherever it has passed in the shape of free lines. What you are really doing all the time is sketching, though you do not think of it under that name. You are sketching the forms of letters, hurriedly and inaccurately, perhaps, but still so that the intended forms are perfectly recognisable by anybody who can read that kind of writing. This pen process is one of the important forms of graphic art, as we have seen in one of the earlier chapters of this volume, and it is quite an artist's process — by which I mean that it expresses form without unnecessary mechanical

toil, for the essence of the liberal arts is that they do not subject mental expression to any manual slavery which can possibly be avoided.

Having, as a writer, enjoyed the freedom of an artist, you shall now, at least in imagination, realise something of the slavery of an ordinary wood-engraver. Suppose that, under penalty of starvation, you were compelled to take a fine-pointed brush charged with vermillion and to fill up all the white spaces on your paper so as not to encroach in the least on any of the black lines, and that the filling up should be done with such perfect neatness that when it was accomplished your letter should look just as if it had been written in black ink on red paper. That is the work that the ordinary wood-engraver has to do, yet with this difference — that handwriting does not contain so many troublesome little interstices as the crossed lines of a delicate pen-drawing upon wood.

I need not point out that the filling up with vermillion would not be an intellectual occupation, nor one calculated to advance the practiser of it on the road to high artistic achievement of any kind. After ten years of such work a man would fill up little spaces of various shapes very rapidly, but he would not think more clearly for the discipline, nor be more keenly sensitive to the beauties of art or nature.

The plague of the wood-engraver is the draughtsman's habit of crossing lines, because, when the cut is to give, in the printing, the effect of crossed black lines, all the little lozenges between them have to be cut out with a burin, for it is the wood that is left untouched, and that alone, which prints. Now, suppose that the draughtsman has gone so far contrary to the true nature of the wood-engraver's art as to insert a dot in each of the white lozenges, as steel engravers do, then the task is still more wearisome, for the engraver may not even take out his lozenge clearly, but must respect the dot in the middle of it, and cut carefully round that. In Jackson's History of Wood Engraving, there is a part of Harvey's woodcut from Haydon's

Dentatus showing a vigorous leg, seen from behind, with a flying drapery above it. The leg is shaded in cross-hatching, with dots in the lozenges. There are not dots in all of the lozenges, but in the drapery above there is hardly a single interstice without its own separate bit of labour—a dot in some, or thin line in others. Work of this kind is greatly admired by those who look upon wood-engraving as a sort of rival to intaglio engraving on its own ground, but it is labour entirely thrown away, and is only interesting as an example of an art set to do something contrary to its nature, and overcoming the difficulty, like a horse going up stairs. My reason for saying that such labour is thrown away is, that so far as artistic results are concerned (these being the expression of thought, knowledge, and imagination), there is not the slightest necessity for cross-hatching at all, because every idea that an artist desires to express can be perfectly expressed without it. The proof that very beautiful work can be done without cross-hatching is, that when a wood-engraver, even a modern one, is encouraged to work in his own way, according to the true spirit of his art, he discards hatching as a released prisoner throws down his fetters, except hatching in white lines, which is as easy for him as black hatching for a pen draughtsman. Our commissions to M. Pannemaker, one of the two or three finest wood-engravers in Europe, and to Mr. Linton, who occupies a similar position in America, were simply to engrave according to the true spirit of the art, without any deference to popular requirements ; and if the reader will turn to their engravings in this volume, he will find that the lines made by their burins are not interrupted by conventional obstacles, but only by things which have to be represented, such as the darkness of eyes and hair. The elements of a wood-engraving by Pannemaker are long lines, often running very nearly parallel and exquisitely modulated, so as to express subtle swellings of form, rather broad spaces of white and black, and little white dots to relieve the too great monotony of a black. Because woodcuts are cheaply printed, and thereby largely disseminated in the

illustrated newspapers, nobody seems to know or care anything about them, and the great wood-engravers of the present day whose names, as mere signatures, are in every house, are only known to the publishers who employ them and to a few, a very few, critics who take an interest in all the graphic arts. There was a rather large wood-engraving, by Stéphane Pannemaker, in the Salon of 1881, simply entitled 'Jeune Fille,' from a picture by Jacquet, a splendid piece of straightforward and learned burin work on wood, with fine modelling, rich darks, and a softness quite recalling the quality of the original. An impression of that engraving, very carefully printed, would deserve a place on the walls of the most fastidious critic; but who will value a print which has been disseminated through all the cafés of France in *l'Illustration*? Mr. Linton practises the white line with precisely the same thoughtful independence that the old masters enjoyed when they made free studies in white brush-line on grey paper. 'Whether good or bad,' he says in his little book on Wood-engraving, 'failing or succeeding, the graver-work in my own cuts is drawn with intention and design, it is white-line work, as all wood-engraving, except *facsimile*, must be.' Criticising an engraving by another man, he says: 'The white lines here are not drawn. The practised engraver knew that certain closeness of line or largeness of wood would produce certain colour, and availed himself of that knowledge, but for the meaning of each particular line he was without an artist's care, so that he has only filled his spaces with cut or left lines, fairly keeping the general effect of the draughtsman, but losing the form and meaning in which the value of the drawing, what may be more properly called *the drawing*, consisted.' Here we have Mr. Linton's most essential doctrine, which is, that not only should a woodcut be done in white line, but that there should be a certain thoughtful vivacity in the line which ought to express the engraver's intelligent care. The reader will perceive that Mr. Linton has acted upon his own doctrine in his engraving from Titian, which is just as truly *engraving*, in the

strict artistic sense, as burin work on steel. It is not simply wood-cutting, not simply the cutting out of bits of wood, it is *drawing with the burin on a wood-block*, an incomparably higher art.

Wood-engraving may be conveniently divided into four classes, as follows. The reader will find that they include the whole field of the art:—

1. That which is done for its own qualities as an independent kind of engraving.
2. That which is done to give an exact *facsimile* of a drawing.
3. That which interprets shades by lines.
4. That which is done to imitate the qualities of some other kind of art.

All have a certain value, but the quality of the work is so different in the four that it is impossible to speak of all at the same time. They have nothing in common except this, that in all of them the black is left and the white cut away, and that, at least in modern work, the same tools and materials are employed, namely, burins of different degrees of acuteness and boxwood cut across the grain.

I. *Of woodcut done for its own qualities as an independent kind of Engraving.*—We have seen already that when the burin cuts a line on wood the line prints white, whereas the line in all kinds of intaglio engraving prints black. Hence it follows that the white line is the natural expression of the wood-engraver, and the perfection of his art is to use it as a man who draws intelligently with the burin, and not as a mere labourer who digs what he is told to dig.

Besides the white line the wood-engraver has two other very valuable means of expression at his command, the white space and the black space. The white space is easily and rapidly obtained anywhere by cutting away the wood. The black space is obtained still more easily by leaving the wood just as the planer left it. The full value of white and black spaces only

becomes intelligible to us when we have studied the subject. Until we have gone rather deeply into art matters we fancy that an empty white space in a drawing is mere vacancy, and that it has no active effect. This is a great mistake. Mere blankness influences the spectator in various different ways. It makes the rest of the work look stronger and more interesting, it gives the notion of light and of serene space. Rembrandt very frequently used white spaces in his etchings with settled artistic intention. The proof that they give strength to the rest of the work may be got from an experiment familiar to all etchers of landscape. You etch a landscape and leave your sky a blank, intending to add a sky after taking your first proof. So long as your sky is mere white paper the landscape looks vigorous enough, but no sooner have you etched a sky with some force and meaning in it, than, lo ! all your landscape is suddenly enfeebled, and has to be worked upon and darkened to restore its lost strength. And yet there was no positive loss of strength, the loss was merely relative, but relativity pervades everything in art. Now, just as you may weaken a part of your drawing or engraving by darkening some other part, so you can give strength and interest by setting a blank space elsewhere in the same work, and it is in this sense that white spaces are active. I remember making a drawing in my youth for an eminent wood-engraver, and when he had finished his task we were both dismayed by the dull, grey look of the performance, but we tried a white space by losing the lightest greys in white, and this effected a cure. This loss of light greys in white is a perfectly legitimate method of interpreting nature. We find it continually in the drawings of the great masters, who very seldom attempted to give all the shades, but contented themselves with indicating the most important. It may be taken, then, as a settled principle that a wood-engraver may represent pale greys by white if he chooses, and that if he makes this sacrifice the rest of his work will appear all the more powerful for it. We now come to another matter of especial importance in wood-

engraving, because it is a strong point of the art, I mean the flat black in which several different dark shades may all be lost and merged as the light greys were in white. Both are, in fact, equally legitimate, and both are exceedingly easy to the engraver, for if he has only to cut away wood roughly and boldly to get pure white he has but to leave it as it is to get a flat black of a very fine quality indeed. Like the white, the flat black has a great relative power, it gives delicacy to the darker greys, and by its own emptiness it gives interest to the slightest touches of the burin that come near it. Of course we all know that there are no flat blacks in nature, except in the mouths of caverns, but art is full of sacrifices, and this is one of them.

The white line, the white space, and the flat black, are the principal means of expression at the disposal of the wood-engraver who tries for the qualities of his own art; and if you examine what has been done you will find that these three elements are more or less characteristic of all wood-engraving which is valued *for itself* by collectors, and not for its representation of painting or drawing. Here we must keep very closely to our distinction between the four classes of woodcut mentioned above. We must remember what a very humble position wood-engraving has generally occupied amongst the fine arts, and that in its early days the practitioners of it had no higher ambition than that of spreading a very cheap kind of art amongst the people. The plain truth is that the early wood-engravers were simply workmen who either interpreted designs in a white line, which was far from being an adequate interpretation of nature, or else made rude facsimiles of coarse drawings in black lines. Nevertheless, there is ample evidence in very early work that almost from the beginning of the art the designers of woodcuts felt the value of white spaces and flat blacks. The white spaces may have come at first without settled intention, as it was too difficult and laborious for inexperienced men to work out a block in greys, but the flat blacks were unquestionably intentional, being put in their places with the utmost

decision, and sometimes at once relieved and adorned by a delicate ornament in white. In the famous St. Christopher wood-cut, long believed to be the oldest extant, the doors of the houses are in flat black, and one of the trees was first cut out in black *silhouette*, white leaves being afterwards cut in that. In the old 'Annunciation,' nearly of the same date, a space of flat black against the wall of the chamber stands for the dark ground of some tapestry or painted decoration which is delicately cut out upon it in white. Down to a quite recent date in Japan and China it was the custom to seize upon every decidedly black thing, such as a black velvet cap, or a shoe, and make a patch of pure printing ink of it in the impression, a technical device by no means rare in old European wood-engraving.

It is believed that the white dot was introduced to relieve flat blacks about the middle of the fifteenth century, and soon afterwards it came to be extensively used in flat backgrounds which gave relief to figures. This may possibly have been suggested by wood-carving, for it was the custom in carving bas-reliefs in oak to roughen the background with little holes either bored or hammered; but an early French engraver, Bernard Milnet, had executed several cuts entirely in white lines and white dots. I have observed elsewhere that this white dot has been revived in our own day with excellent effect in astronomical wood-engraving. It gives us the constellations and nebulae on a perfectly black ground, and on the whole, notwithstanding the extreme simplicity of the means employed, the result is nearer to the truth of nature than it could be in any other kind of engraving. The white dot is still employed by modern artistic wood-engravers, and like the white line is most used by those who cultivate the art on its own account, but it is not a means of executive expression, as the line is, the value of it is merely to diminish the too regular strength of blacks in very large spaces.*

* I remember one instance in which the white dots (not round, however) have a meaning, and that is where Bewick has made them represent

It is generally admitted, in theory, that Bewick was the most perfect representative of wood-engraving after the revival of the art ; but modern wood-engravers have seldom been faithful to his principles. All the effect of his work was dependent upon his fidelity to the three great means of interpreting nature which woodcut places at our disposal — the white line, the white space, and the flat black. It is impossible to speak too highly of the soundness of his method, which was perfectly in accordance with the genius of the art he practised ; but the zeal of his admirers has assigned him too high a rank as an artist, probably because he was a thoughtful and intelligent man, who often put into his work a great deal of invention and observation besides an uncommon degree of sympathy with human beings and animals. They rank him too high, because he never saw things in their true relation to each other, because he had no conception of visual effect ; he could take a bird or a fish and copy its feathers or its scales and give quite accurately the beautiful curves of its outline, but if he had to make a group and set it in a landscape he had no other notion of managing such a piece of work than simply doing one thing after another as if each had been alone. When he has to draw a branch in the foreground he does first one leaf and then its neighbour, and so on, so that you can count them. There are three twigs in the left-hand corner of a cut before me ; the biggest has twenty-two leaves, the second nine, the smallest six. In the ruined cottage behind the ewe and the lamb you can count the stones — there are twenty-two on the side that is in light. His trees are often bunches of leaves on branches ; there are nineteen such bunches on the principal tree in the vignette of the fisherman near the waterfall. His rocks are like steps going up to a house, or sometimes like coal strata in a mine. His management of tones showed little artistic craft. White, black, and a very few greys, bees in the cut of the 'Ass and the Bee-hives.' There is a perfectly black space behind the hives which the bees serve to lighten so as to prevent heaviness.

were the means at his command, but he sometimes put his blacks too much in the distance, as in the three horses galloping down a field in a hunt with a countryman shouting ; and he had so little the art of managing greys that when he tried grey upon grey, as in the bull ridden by a boy, and the two pigs held with strings by a rustic, the animals are at first sight indistinguishable from the background. Many of the woodcuts of Bewick betray those faults of tonic arrangement, and those solecisms in composition, which are perfectly familiar to artists as the common marks of amateurship ; yet in spite of these deficiencies, which I mention only for the sake of truth, and not in a hostile spirit, Bewick was one of the most *genuine* wood-engravers who ever lived, and his work is always a model of directness and honesty of method. You never find Bewick trying to make you believe that his woodcuts are steel engravings, nor do they in the least resemble pen-drawings, they are as plainly woodcuts as their author was a north-country Englishman, unimbued with the Hellenic or the Florentine spirit ; and this is the reason why, with all their innocent errors, they are so profitable as a study when we desire to know the true nature of wood-engraving. The clever American engravers of the present day can beat Bewick hollow in variety of resource, and especially in the management of tones, but we learn more about the foundation of the art from his frank and simple-minded genius.

When he had settled about the story of his little vignette, for every vignette had its own little tale to tell, Bewick seems to have determined where he would put his flat blacks and clear out his spaces of white. He found an excuse for flat blacks in all sorts of shadowy holes and corners, such as the dark hollows in foliage, the cavernous places in rocks, and even in the broken turf and sod on a rough foreground. In his birds a few dark feathers together would answer the purpose to some extent, but the boughs or rocks they perched upon afforded even better opportunities, or the grass near them might be supposed to

have very dark places against which the light blades would cut prettily, and be easy to engrave. He generally repeated the flat black three or four times in the same cut, each time in diminution, so that it might not be too conspicuous. As to his whites, he managed them by bringing the white sky down into the subject through the openings of trees, and by giving broad white lights on grass in sunshine, on the bodies of animals, and on the clothes worn by his figures. Although there are many instances of apparently black lines in the woodcuts of Bewick, I believe it will always be found that from the workman's point of view they were not really lines, but spaces included between white lines made with the burin, upon which his own attention was directed. Whenever he desired to make a space grey he lightened the black with white lines, but what he especially delighted in was the pleasure of cutting out pretty things in white on black, such as plants and feathers. In this he showed a good deal of the middle-age decorative spirit.

Bewick has been placed, since his death, in a false position by being classed amongst great artists, when in fact he was a naturalist and humourist, in whom the artistic faculty was a subservient gift, and never developed by education. 'I ought distinctly to state,' he says in his own Memoirs, 'that, at that time, it never entered into my head that it was a branch of art that would stand pre-eminent for utility, or that it could ever in the least compete with engraving on copper. I ought also to observe that no vain notions of my arriving at any eminence ever passed through my mind, and that the sole stimulant with me was the pleasure I derived from imitating natural objects (and I had no other patterns to go by*) and the opportunity it afforded me of making and drawing my designs on the wood, as the only way I had in my power of giving vent to a strong propensity to gratify my feelings in this way.'

The methods adopted by Bewick in execution were the re-

* Observe here both the naturalist's love for natural objects and the absence of artistic example and education.

sult of thoughtful choice. At one time he had felt some curiosity about cross-hatching, and found that he could produce it at a small cost of labour by engraving his subject on two blocks with the lines going in opposite directions. The two blocks being then printed on the same piece of paper, gave a proof in which the cross-hatching was very perfect, but Bewick's interest in the subject went no farther than this experiment. His natural good sense made him perceive that cross-hatching was not necessary when exactly the same degree of dark might be got quite surely without it. Here are his views about this important technical matter, expressed quite plainly in his own words : —

' When I had accomplished this, and satisfied myself that the process was both simple and perfect, as to obtaining the object I so much wanted, my curiosity on this score ceased, and I then concluded that in this way the cross-hatching might be set aside as a thing of no use at all. The artists, indeed, of the present day have brought it to such a pitch of perfection that I do not know that it can be carried any further, and in this they have also been so marvellously aided by the improved methods now used in printing their cuts, that one would be led to conclude that this department has also attained to perfection ; and, had this not been the case, the masterly execution of woodcuts, either by crossed lines, or otherwise, would have continued to be beheld with disgust or contempt. *I have long been of opinion that the cross-hatching of woodcuts, for book-work, is a waste of time, as every desired effect can be much easier obtained by plain parallel lines. The other way is not the legitimate object of wood-engraving.* Instead of imitating the manner of copper etchings, at a great cost of labour and time, on the wood, such drawings might have been as soon etched on the copper at once ; and, where a large impression of any publication was not required, the copper-plate would have cost less, and lasted long enough for the purpose intended. I never could discover any additional beauty or colour that the crossed strokes gave to the impression, beyond the effect produced by plain parallel lines. This is very apparent when to a certainty the plain surface of the wood will print as black as ink and balls can make it, with-

out any further labour at all; and it may easily be seen that the thinnest strokes cut upon the plain surface will throw *some* light on the subject or design; and, if these strokes are made wider and deeper, it will receive more light; and if these strokes, again, are made still wider, or of equal thickness to the black lines, the colour these produce will be a grey; and, the more the white strokes are thickened, the nearer will they, in their varied shadings, approach to white, and, if quite taken away, then a perfect white is obtained. The methods I have pursued appear to me to be the simple and easy perfection of wood-engraving for book printing, and, no doubt, will appear better or worse, according to the ability of the artist who executes them.'

George Manson, a Scottish artist of talent, perhaps of genius, who unfortunately died early and left rich promises but partially fulfilled, was apprenticed as a wood-engraver in his youth to Messrs. Chambers, of Edinburgh. Some examples of his wood-cuts are given at the end of his biography, and they at once attracted my attention as the work of an artist who had been trying to work in the true spirit of his art. His biographer says quite truly: 'Manson's style of engraving was singularly direct and artistic; it aimed to give to each line the utmost value and meaning, and dealt little in the delicate and laborious cross-hatching so characteristic of modern woodcuts.' His master, Mr. Pairman, wrote about him as follows:—

'George had very strong ideas as to the proper province of the art of wood-engraving. He held that it had advantages in the way of simplicity in the production of effect of light and shade, which were wilfully thrown away when any attempt was made to imitate the execution of a steel engraving, as is too often the case. He made no effort to show meretricious skill in mere mechanical dexterity, but followed Bewick, whom he greatly admired, in producing the required effect by the simplest possible means, and in taking full advantage of the power of black, which the surface of a wood-block gives, by working *from the solid black into the white*, instead of from the white into grey by means of a multiplicity of lines.'

In Manson's time there was a Society of Engravers on Wood in Edinburgh, and in 1870 they offered a prize to the apprentices in their profession. Manson was one of the candidates, but we learn that he worked quite differently from the rest.

'The competitors all engraved the same landscape subject, the drawings on the block, which were provided for them, being finished with the pencil point in the usual way to indicate texture, foliage, &c. Manson, unlike the others, entirely ignored these pencilings, and, following his own ideas, produced the effect of the drawing by means of simple lines, all running in one direction across the block, the light and shade being preserved by the varying breadth of the lines. The engraving was executed with such originality and fine sense of atmosphere that Mr. W. L. Thomas of London, who was the judge — while unable to award the first prize for anything so unlike the conventional method of engraving — sent Manson a special prize from himself, to mark his "admiration of the engraver's artistic feeling in landscape."

This little landscape is before me as I write. It is a vignette about four inches long by an inch and a quarter high, and it represents a quiet river scene with fields gently sloping down to the water's edge. The sun is setting behind a group of trees, and there is just one habitation, a cottage or small farmhouse in the middle distance. It is a very poetical little subject, as poetical as a stanza from Gray's Elegy, but all the poetry would have been taken away from it by a prosaic engraver. The way that Manson dealt with it was this. The sun, not yet below the horizon, and the clouds about it, supplied the white spaces that he required, and so did their reflections in the water. The river bank under the sun and the darkest trees near it supplied the flat blacks, the greys being got everywhere by white lines running almost horizontally, though not too formally so, being varied by the direction of the nearest field. There is no such thing as a hard outline anywhere in this delightful little work, but the whole scene is expressed by masses of black, white, and

grey, with tender soft edges like the softness of a natural scene at eventide. The value of a small touch of white in wood-engraving of this genuine kind may be understood by the farthest gleams on the river which are nothing but thin sharp touches of the burin under its darkest shore.

This little vignette, as we have seen, was engraved on another person's drawing, but in the most independent manner. Often, however, Manson would engrave little subjects of his own choice or invention, and so sincere was the interest he took in his art, so deep his respect for it, that he would do nothing whatever carelessly, but went to the living model even for his smallest vignettes, and to nature for his backgrounds. Had he been devoted entirely to wood-engraving there would have been a successor to Bewick, inferior, probably, in humorous or pathetic invention, but working in the same technical spirit and with more artistic culture. Painting naturally attracted him, and he followed it with admirable industry till he was taken away from all our terrestrial occupations.

It would be a great pleasure to see artist wood-engravers working out their own designs in perfect freedom from all false methods, but wood-engraving requires rather more patience of temper than original artists often possess, so that they are likely to prefer etching or one of those forms of drawing which admit of photographic reproduction. Nobody, however skilful, can ever *sketch* with a burin, the utmost liberty he can ever hope for is to draw rather freely, but still slowly, and in woodcut every line the burin makes must be a white line. Mr. Linton's wood-cut after Titian, in this volume, is the freest piece of wood-engraving that I have ever seen, and still, although the burin was allowed to exercise itself without any restriction outside of the inherent difficulties of the work, it is not likely that Mr. Linton really *sketched* as Rembrandt did on copper. You may sketch on wood, but not *in* wood. Hence, if original artists work in wood at all they must be men of quiet temper. I do not dwell much on original wood-engraving, having little hope

that it will ever be much practised, but before quitting this part of the subject finally I would insist once more upon the duty of liberating the ordinary wood-engraver from his slavery. Whenever we employ one we ought to tell him that he is not expected to do anything whatever in the least degree contrary to the true genius of his art, that he is not expected to make his woodcut look as if it had been engraved in some other way, and that he is to adopt, in the frankest manner, the kind of line which will get the right degree of shade and the correct form most easily to himself. Working in these happy conditions the wood-engraver rises to a higher grade in art, his profession ceases to be a drudgery and becomes a liberal profession, his mind wins culture from his work and the work itself is better.

II. — *Of Wood-Engraving in Facsimile.* — This kind of engraving is quite distinct both in principle and results from that which has hitherto occupied us in this chapter. The reader must understand that when an engraver like Bewick makes a woodcut, his burin does not follow any line set down for it, but translates freely into the true language of wood-engraving the appearance of some natural object or effect. On the contrary, in facsimile engraving, the wood-cutter does not exercise his intelligence in the translation of a natural object or a picture into the language of his own art. Strictly speaking, he can scarcely be said to exercise any intelligence whatever, except just so much as may be necessary to cut out a prescribed bit of boxwood with the necessary exactness. The drawing is made upon the wood with a pen or the point of a brush, generally by another person, and all that the engraver does is just to hollow all the little areas of wood that are left inkless. The reader may soon find out what the work is like if he will take the trouble to make a little experiment. Let him write his signature freely on a piece of hard wood, and then cut out exactly, with a sharp penknife, all the parts of the wood not covered with ink. This would be engraving of the earliest kind, which was

done with knives in planks before the refinements of burin work in boxwood cut across the grain.

The reader is not to suppose, however, that facsimile wood-cutting of the best kind is a common commodity. It does not require intelligence, but it requires a degree of care which few workmen will ever give. Mr. Linton, in his little book on the art, published examples of good and bad cutting—a little bit of sound old work, and another little bit of careless, untidy work, like that done by the modern ‘near-enough school.’ In the one the lines are clear and of the intended thickness, in the other their thickness varies, and where they cross the angles are not properly cleared out.

Early wood-cutting is nearly all of it either facsimile work or done as if it were—I mean that either some artist drew ink lines on the block which were afterwards left in relief by the cutter, or else the cutter interpreted his subject on the principle of such lines. The probability is that the lines were generally drawn. The dominant idea of all facsimile work is as different as possible from Bewick’s. It has nothing to do with white lines, but gives black ones firmly everywhere; and they are generally rather thick, I mean in comparison with the fine lines of a copper-plate engraving, because, being often isolated, they would be beaten down with the press work if they were very delicate. For example, here is a cut from an old book called ‘*Poliphilo*,’* done strictly on the principles of early facsimile

* ‘Of all the woodcuts executed in Italy within the fifteenth century, there are none that can bear a comparison for elegance of design with those contained in an Italian work entitled “*Hypnerotomachia Poliphili*,” a folio without printer’s name or place, but certainly printed at Venice by Aldus in 1499. . . . The name of the author was Francis Colonna, who was born at Venice, and at an early age became a monk of the order of St. Dominic. The true name of this amorous, dreaming monk, and the fictitious one of the woman with whom he was in love, are thus expressed by combining, in the order in which they follow each other, the initial letters of the several chapters: “*Poliam Frater Franciscus Columna peramavit.*”’—*Jackson and Chatto’s History of Wood Engraving*.

work. Please observe how carefully, as a general rule, the lines are kept well clear of each other in this cut, and what a very considerable thickness is given to all of them. See how strong are all the markings on the trunks of the palm-trees, and with what clear, bold simplicity all the principal lines of the Roman armour in the left-hand corner are mapped out. Notice the extremely laconic manner in which the form of the lizard is expressed, and think how very differently Bewick would have engraved it. This primitive wood-engraving expresses a great deal with its simple line : here we have animal and vegetable forms carefully observed, architecture and armour clearly explained to us, and distant land drawn with much truth and a good understanding of its use in composition, but there is no delicacy of shade and hardly any linear accent or contrast. It is the sort of drawing which would very well bear a few washes with the brush, to separate plane from plane, and in fact it was often understood that such early woodcuts, which the artists had not skill to shade delicately with the burin, were to be not only shaded afterwards, but even tinted in water-colour.

The strong outline was often accompanied by a little shading at right angles to itself, to give relief. For example, there is an old alphabet in the British Museum of large capital letters composed of figures, a letter to each leaf; and if you look at an arm or a leg you will find that it is shaded with short lines, to suggest the idea (rather remotely) of roundness, and that these short lines are invariably at right angles with the firm outline of the limb, turning at the elbow or the knee. Each cut is framed as if in an open window of a new house before glass or woodwork had been put into it, and one side and the top are shaded very firmly in strong lines, all following the perspective carefully. The printers of these early block-books seem to have been aware that the strong lines produced by the engravers of those days looked heavy in black, so they sometimes printed them in pale brown, or even yellow, to give them the delicacy which they lacked. We give a fine example of that class of art, representing a death-bed, and printed like the original.

The woodcuts which bear the name of Albert Dürer are not to be taken as specimens of his engraving. As it is useless to say over again what has already been perfectly well said, I quote Mr. W. B. Scott, one of Dürer's best biographers, on this subject :—

'The idea, first started by Bartsch, that Dürer never actually engraved on the wood, but only drew the picture on the block, is now generally admitted as true. Ottley, however, and others, consider he did engrave occasionally.'

'In the early period of the art the process was materially different from that now in use. Now boxwood, cut sectionally, is exclusively used; the tool employed being the burin. In Dürer's time pear-tree and other woods were used, and in the plank simply; a very fine knife was the instrument principally employed. The thirty-six blocks of the "Little Passion," now in the British Museum, are cut out of the plank. It will thus be seen that a large size was an immense advantage, and we need less to wonder at the dimensions of Dürer's and other early artists' block pictures, those by Hans Sebald Beham and Burgkmair, for example. The copper engraving was a miracle of miniature detail in the hands of H. S. Beham, his wood-engravings gigantic. The impressions of Dürer's Triumphal Arch of Maximilian show the seams of the planks running from end to end.'

It has been argued, in the 'History of Wood Engraving,' that the frequent presence of cross-hatching in the woodcuts attributed to Dürer, is presumptive evidence that he only designed them, for a draughtsman naturally uses cross-hatching, as it is easy to him though laborious for the cutter. There appears to be no reason to suppose that Dürer was unable to find cutters skilful enough for the comparatively easy and coarse work he set them. Besides, if we compare Dürer's pen-drawing on paper with his woodcuts, we find striking points of similarity in treatment, which goes far to prove that he looked upon wood-engraving simply as a means of multiplying drawings, and that he did not see any special quality or virtue in the art itself, as Bewick and young Manson did. In the cut of the 'Penitent,'

given herewith, the reader has a fair example of this class of work. It is boldly and simply arranged in masses of light and dark, without any attempt at delicate distinctions, and there is a degree of art, by no means to be despised, in the arrangement of oppositions, as, for example, that between the light side of the man's body and the darkest part of the background, or the darkly-shaded drapery which relieves the foot ; but the drawing is evidently intended for what Dürer considered a rude kind of engraving. If the reader is inclined to forget, even for a moment, that the designer of this block was an artist of great manual refinement, he has only to turn to the Shield with the Lion and Cock, reproduced with wonderful fidelity in this volume, and of which Mr. W. B. Scott says that 'in manipulation with the graver it is one of the most excellent pieces of work ever done.' Let it be remembered that the same skilful hand drew this rude design on wood and made those delicate lines with the burin, his ability to work delicately being ample evidence that in drawing for the wood-engraver he conformed himself to the condition of what was then a very inferior art.

The old facsimile wood-cutting had, in truth, no one point of superiority over ink-drawing on paper, whilst it was inferior to it in freedom. You may copy all Dürer's woodcuts with pen and ink quite accurately, if you have patience, but not one of Bewick's birds. The merits of Dürer's woodcuts are simply the merits of the artistic design, the nobility of a figure, the interest of an expression, the dignity of an attitude ; the engraving is less than nothing, for if we could have the original drawing before the knife of the cutter touched it, we should gain by the exchange. You could not say that of any really precious engraving. You could not say that, as a work of art (setting aside venal value), you would prefer a pen-drawing by Dürer to a good proof of his work in copper. However much we may admire these old facsimile woodcuts they are nothing in themselves, as woodcuts, they are only drawings multiplied in a certain fashion, and that not a very perfect fashion, for there is

certainly a loss even if we do not see it — certainly the *formschneider* has not always cut out his whites with absolute and irreproachable fidelity.

I have already had occasion to remind the reader more than once that the plan of this work does not include anything like a history of the graphic arts, which in itself would require twenty volumes such as this. My references to the past are simply technical. I often select the work of an old master in preference to a modern because the old master is more generally known and also because his work is less complex in its character. The simplicity of a Dürer woodcut makes it so easy to analyse that it serves admirably as an elementary example of facsimile engraving. From him the student may go to Holbein for a kind of wood-engraving essentially the same but superior in delicacy and refinement. Holbein is exactly in the same position as Dürer with regard to wood-engraving. People speak of Holbein's cuts as they do of Dürer's, so that an impression exists that these artists were engravers on wood, an impression for which there is no historical justification. So far as work on wood is concerned these artists did not occupy exactly the same position as George Du Maurier, because he makes his pen-drawings on white paper and they are afterwards photographed on wood, but they *did* occupy the same position as John Leech, who drew upon the block itself, and we should never speak of Leech as a wood-engraver, we call him a draughtsman. The work of Leech has been mentioned in this volume in the chapter on drawing with pen and ink, and if the reference to Holbein had concerned Holbein's genius as an artist I should have spoken of his woodcuts in that chapter as so many ink drawings, which they really were. It is known that the Holbein Alphabet was engraved by Hans Lützelburger, and the 'Dance of Death' is now believed to be the work of the same engraver.*

* 'Ce n'est en effet qu'en 1538 que deux libraires allemands, les frères Melchior et Gaspard Trechsel, publièrent à Lyon, sous l'escu de Cologne,

The cutting was done honestly and simply, and the draughtsman carefully prepared the wood so that it should not be too difficult for the cutter. The state of mind in which Holbein made a drawing on wood compares very advantageously with the complete indifference of the modern draughtsman, who covers his block with lines crossing each other in every direction and leaves the poor slave of the burin to pick out the whites as he can. Cross-hatching is so extremely rare in the Holbein cuts that if there were not reviewers to pounce upon the one or two exceptional instances one might say that it never occurs. Local colour is simply omitted. Shading is not omitted, but it is perfectly arbitrary, and is used in the most independent way for two distinct purposes, expressing modelling in one part of a cut and privation of light in another, often in the most incompatible and contradictory manner. For example, in the drawing of the 'Avaricious Man,' where Death is taking away his money, the light comes between the bars of his prison-like window at an angle indicated by the slanting cast shadows, but the man himself is shaded simply for modelling without reference to the direction of the light. This system is frequent in the cuts which are simply explanatory without fidelity to visual effect. A very striking instance is the subject of 'Death and the Bishop.' The landscape is in a hilly country, and the sun is in the cloudless sky above the hills. Rays issue from the luminary, and as they are all black lines getting nearer as they approach the centre, like the spokes of a wheel, the

le petit in-octavo intitulé *les Simulachres et historiées faces de la Mort, autant élégamēt pourtraictes que artificiellement imaginées*. Dans ce titre, qui peut sembler singulier, les mots ne sont pas employés au hasard. Pour qui connaît le langage du XVI^e siècle, le terme *pourtraictes* se rapporte au rôle du dessinateur ; le mot *imaginées* fait au graveur la part qui lui est due. Cette remarque ne paraîtra pas inutile à ceux qui se souviennent que, pendant longtemps, les compositions et la gravure ont été attribuées au même artiste à Holbein ; l'érudition moderne, une lecture plus attentive des documents lui ont donné un associé, l'habile *formschneider Hans Lützelburger*. — PAUL MANTZ.

consequence is that the sky, instead of getting lighter and lighter towards the sun, becomes darker and darker, whilst the mountain comes in white against it, which not even a snowy Alp would do in nature, and the bishop's face, which ought to be in shadow, is much lighter than the sky. It may be asked whether Holbein did work of this kind in pure ignorance or whether he had a plan. I believe the answer to be, simply, that he looked to the general distribution of light parts and dark parts over the area of his drawing quite without reference to natural truth. Considering Holbein's object, the production of a woodcut that should tell its story plainly and be about equally clear everywhere, I have no doubt that he was right, but it is a matter that can be very easily tested. Any artist who understands chiaroscuro could paint over a Holbein woodcut a correct arrangement of the same subject in light and shade, and from the painting so done a clever modern wood-engraver could make a fresh woodcut. I see the result as if I had it before my eyes. The improvement would throw the composition out of balance as a drawing, and would cast into obscurity the parts which Holbein desired to show most plainly. Modern draughtsmen on wood ought to bear in mind that the qualities of a Holbein cut and those of a drawing in correct chiaroscuro are as incompatible as those of two different chemical substances. You might as well try to find something which should have the properties of sulphur and soda as a kind of art which should give the incompatible satisfactions of a clear old German woodcut and a modern rendering of natural light and dark.

It is a great mistake to suppose that facsimile wood-engraving like that which bears the name of Holbein represents the art at its best, or even represents it fairly. After all, the Holbein cuts are only drawings in grey and white, and they do not make the most of a wood-block with its possibilities of fine blacks and other resources already known to the reader. Their great fame is due to the inventive mind of the artist, to his skill in giving animation and character to his little figures. They are justly

esteemed for the sound pen work of the designer, and for the clear and careful cutting done by the engraver, all quite honest and faithful work so far as it goes, but not by any means *le dernier mot* of wood-engraving.

A chapter of this book has been given to auxiliary washes. The reader will find it a great help to the understanding of the woodcuts designed by Holbein, if he considers them the same thing in principle as a combination of line and wash. He will follow what I call especially the line, that is, the significant, organic line, which marks all the forms, and then he will find shades, often diagonal, often in quiet curves, which correspond to the auxiliary wash in drawing. Holbein would easily learn this combination from the copper-plate engravers who had practised it with success both in Germany and Italy. After a complete analysis we find that although this work is done for the wood-cutter it is done on principles of interpretation already perfectly familiar to artists who did not work for the wood-cutter at all. It is often so in the fine arts, where a familiar principle will appear under a new form, and we greet it with a smile of recognition.

The powers of facsimile in woodcut are very limited, much more limited than in the processes of photographic engraving. In woodcut the only line easily imitable is that of a pen charged with ink of one tint. The printing ink can be mixed so as to match the tint, if it is uniform, but if it is not, if some of the lines are pale and others dark, then a difficulty arises which is met by the engravers in their own way. They hatch across the pale lines to make them lighter, a process which gives the right tone to the line but destroys its resemblance to the stroke of a pen. Again, although wood-engravers have often attempted to imitate pencil lines it has always been without success, because printing ink on a wood-block has not the quality of pencil. Still the reader may perhaps be surprised to hear that facsimiles of pen-drawings cut in wood are generally better than the photographic facsimiles which are made to print with type. There

are two engraved facsimiles in this volume, one from Fortuny, in which the engraver has hatched across some of his lines, and the other from Raphael, in which he has not done so. It would be very difficult to match the quality of these cuts in any kind of photographic engraving which can be printed in the same way.

Facsimile wood-engraving is still employed in publications which can afford it. *Punch* affords good examples of it every week, but the vile Continental *journaux pour rire*, the witless and tasteless comic periodicals sold at French and Italian railway stations, are generally illustrated by pen-drawings done on paper and engraved by one of the cheap and defective photographic processes. In Gustave Doré's large illustrated editions of Dante and Don Quixote facsimile wood-engraving alternates with interpretative, and whatever may be the varieties of opinion as to the accuracy with which Doré has rendered the conceptions of Dante and Cervantes, it is certain (indeed we have it on his own authority) that his engravers have been as faithful to the letter in facsimile as they have been faithful to the spirit in the other class of work. Those volumes give splendid evidence of technical skill in the engravers and were at the time of their production the most striking examples of modern wood-cutting. Since then the art has gone in other directions.

III.—*Of Wood-Engraving which interprets Shades by Lines.*

—I include under this head only those cuts on which the draughtsman has laid shades on the block, generally with a brush, which the engraver has to work upon in such a manner that they will print tones as nearly as possible equivalent to those of the drawing itself. The reader will easily appreciate the extreme difficulty of this. The whites are got easily enough—they have only to be cut out—the blacks are obtained with even greater facility—they have only to be left—but how about the forty or fifty shades of intermediate grey which have to be imitated and destroyed in the very process of imitation?

The plain truth is, that this kind of wood-engraving is too difficult to be done well by any except experienced masters, and so it is often a failure. The old masters, in drawing for the wood-cutter, were content to give him three or four greys to interpret; the modern draughtsman gives ten times as many. It is by no means surprising that when the art is set, in this manner, to give more subtle distinctions than were ever required of it in former ages, the results should be often unsatisfactory. Even when perfectly successful, so far as it goes, wood-engraving can never be delicate enough to rival intaglio engraving in copper or steel in the quality of tonic fineness and accuracy. The reader will never find a woodcut equivalent to the engraving by Mr. Brandard, after Alfred Hunt, in this volume. Nevertheless, when you take into consideration the technical difference between the two arts, the fineness of intaglio engraving is the less surprising of the two, because it comes naturally when you have a sharp point and polished metal, whereas any great degree of fineness in woodcut is the last result of art. If you open any book with landscapes in it engraved by Mr. Edmund Evans, such as Birket Foster's edition of Cowper's *Task*, which is one of the most perfect examples, you will find that grey tones of a very considerable degree of delicacy are sustained with great steadiness across very intricate passages. I am thinking just now more particularly of grey skies and hills seen through the intricacies of branches, or of fields of which the green is represented by a grey and seen through hedges or railings. Now, there is nothing easier in wood-cutting than to set a tree against a white sky, because you have only to pick out the sky entirely in all the openings and you have it; but when the sky is grey it is a different matter, because then every little separate bit of it has to be engraved just of the right shade; and when this is done, so as to preserve the tone of the sky from right to left, and its gradation from the zenith to the horizon, you may be sure that the engraver has accomplished a very difficult feat, though it may seem as nothing to people ignorant of his art.

The technical progress made in wood-engraving in the first half of the nineteenth century, enabled draughtsmen on wood to give not only light and shade, but local colour also, an immense advance towards the truthful interpretation of nature.* For example, in the little vignette at the end of the second book of the *Task*, representing Cowper's House at Olney, the distinctions of local colour are very carefully observed. You see the difference between the dark grey thatch and the whitewashed fronts of the cottages, between Cowper's red brick house and the white one next it, between the brick wall and the stone facings. So careful has the artist been of the resources of local colour, that a pitcher on the foreground near the pump, which is only an eighth of an inch high, has two distinct colours, a very dark one at the top where it has been glazed, a paler one below where it is unglazed, and the glazed part has its touch of sparkle, whilst on the unglazed part the light is more diffused. These may seem trifling matters, but if anybody could have engraved that little pitcher in the sixteenth century the whole history of the art would have been different. The beautiful woodcut engraved by Mr. Evans for this work (entirely with his own hands) is in limited local colour, like an etching, the lightest tints being merged in white, which gives the work much of its brilliance.

It would be rather outside of our present purposes to enter into the scientific uses of the graphic arts, but I cannot help

* I have more than once explained what local colour is, but as the reader may possibly not have met with previous explanations, I repeat here that local colour in all the black and white arts means the translation of all hues into their relative degrees of grey. For example, the reader has probably seen a palette set for painting in oil, and may have noticed that, besides being different in degrees of heat and cold, the pigments are also very different in light. If an accomplished engraver were set to represent the palette, he could not explain that one pigment was red and another blue, but he could show which was the darker. This is the only sense properly attaching to the word 'colour' in engraving, but, to avoid a possible misunderstanding, I am always careful to use the adjective at the same time.

observing that the very great services rendered by wood-engraving to the sciences have been principally due to the modern development of it, by which objects can be accurately shown. The power of exhibiting local colour in wood-engraving is of immense importance in scientific illustration, as it explains very many differences directly to the eye which pages of writing could not make so clear. Besides this, the power of minute finish, of which Bewick set the example in his birds, however much it may be disdained by the exclusive admirers of early work, is of priceless value in scientific illustration where the smallest details are of consequence. If wood-engraving had remained down to our time such as Albert Dürer, or even Holbein, knew it, the sciences would have been little aided. The reader will, however, do well to bear in mind that the qualities of scientific and artistic engraving are very different. Those extremely neat and sharp woodcuts that we meet with in scientific books do not even give visual truth, without thinking of artistic arrangement. They answer their own purpose, which is explanation, but however marvellous may be the manual skill employed upon them, and their scientific precision, they are outside of the fine arts, and could not withstand any serious artistic criticism.

IV.—*Of Wood-Engraving which imitates other Arts.*—The great technical progress made by wood-engraving in the nineteenth century has led to its employment for an entirely new kind of service. It has been discovered that in skilful hands the wood-block might be made to imitate the qualities of all the different graphic arts, not with such perfection that there would be any chance of mistaking a woodcut for anything else,* but with sufficient accuracy to convey to the spectator's mind a sort

* I mean that a cultivated critic would never take a woodcut for anything else; but the same cannot be said of the general public, or even of artists. I have seen highly finished modern woodcuts taken for copper-plate engravings, both by the laity and by artists.

of echo which would recall the qualities of the art imitated to his memory.

It may be well, before going any farther, to ask whether this new development of wood-engraving ought to be encouraged or repressed. It displeased all severe judges at first because they preferred the genuine thing — an honest piece of cutting in facsimile, like a Holbein, or an honest piece of true white-line independent wood-engraving, quite different from all other arts, like a Bewick. This was my view when I first saw the productions of that school of imitative wood-cutting which has sprung up in America, and been fostered there by successful magazines. It seemed to me that here was a new device for tickling the public taste by variety, when it so grievously wanted educating into the appreciation of the one or two simple styles which are eternally right and ought to be permanently acceptable. Since then my views on the subject have undergone some modification. It seems to me now that if the situation of this imitative wood-cutting is properly understood it may render very acceptable services. It can be made to convey a suggestion or a reminiscence of certain qualities in other arts which may be well worth having. For example, I once wrote an article for *Scribner's Magazine* on Mr. Haden's etchings, and the great skill of the American wood-engravers permitted us to give reduced copies of many etchings, copies which, without having all the qualities of the originals (flat printing can never represent intaglio printing), were still near enough to convey a good idea of the originals to anyone who understood etching. Here was a service that could not have been so cheaply rendered by any other means. In the same way this imitative wood-cutting will convey a very fair idea of a picture, giving the local colour with considerable accuracy, and even suggesting the touch ; or it will give the softness (approximatively) of a charcoal drawing, or the darks and lights and flat middle tint of a black and white chalk drawing on grey paper. All these, and many other feats of imitation too long to enumerate, may be precious services

in a great democratic community where thousands of people receive a good magazine, yet could not afford to fill twenty portfolios with different classes of prints. They get, in their one magazine, the same variety, or a reflection of it, that richer people have in their collections.

The development of delicate and versatile wood-engraving in America is due to the managers of *Scribner's Magazine*, who worked resolutely with this definite end in view, and gradually reached perfection by paying for many cuts which were never published, and by forming a school of wood-engravers animated by the same spirit. Now, whatever may be the differences of opinion about the desirableness of this imitative art, there can be no question that the Americans have far surpassed all other nations in delicacy of execution. The manual skill displayed in their woodcuts is a continual marvel, and it is accompanied by so much intelligence — I mean by so much critical understanding of different graphic arts — that a portfolio of their best woodcuts is most interesting. Not only do they understand engraving thoroughly, but they are the best printers in the world, and they give an amount of care and thought to their printing which would be considered uncommercial elsewhere.*

The two superiorities in American wood-engraving are in tone and texture — two qualities very popular in modern times in all

* 'Our Art-Editor, Mr. A. W. Drake, watches from day to day the printing of every cut, carefully revising the work of the overlayer, and taking to both overlayer and pressman, as guides to their work, not only the artists' fine proofs, but even the originals (drawings, etchings, even oil-paintings), in order to approach as near as possible to the co-related effects of tone.' — *Private letter from Dr. Holland, Editor of 'Scribner's Magazine,' to the Author.*

It should be explained that overlaying in the printing of woodcuts is an art by which the pressure can be increased on certain parts of the cut which are to appear darker. This increase of pressure is obtained by pasting little pieces of paper on the inside of the press. The refined art of woodcut printing has only been understood in modern times. The reader would be quite unable to recognise a fine modern woodcut if it were printed badly, like those upon street ballads.

the graphic arts which can attain them. Tone in wood-cutting depends entirely upon the management of greys. In etching there are half-a-dozen different qualities of black — all black, yet producing quite different effects upon the eye ; in woodcut there is only one black. In painting there are many different whites, all of them equally called 'whites,' yet bearing little relation to each other ; in woodcut there is only a single white, and it is always got in the same way, by excavating the wood. This being so, white and black are settled for the wood-engraver, and he has not to think about them ; but it is not so with intermediate shades, and I cannot but heartily admire the almost unlimited ingenuity with which the Americans vary not only the tone, but the very quality, of these intermediates, getting not one gamut only but several, with the faculty of going from one to the other on occasion, as if changing the stops of an organ. Some of their greys are pure and clear, others cloudy ; others, 'like veils of thinnest lawn ;' others, again, are semi-transparent, like a very light wash of body-colour, and whatever may be their quality it is always surprising how steadily a delicate tone is maintained in them. As for texture, these engravers seem able to imitate anything that is set before them. It would be an exaggeration to say that they get the exact textures of an oil-painting, but they come near enough to recall them vividly to our minds. To appreciate the technical advance, we must always remember that tone and texture are simply absent from the school of Holbein, and that whilst the engravers of the present day can produce an exact facsimile of old work, the old engravers had not even begun that course of experiment and of study which has trained such consummate workmen as Juengling, Speer, Kingsley, Closson, Muller, and Cole.

Comparison of Wood-Engraving with Nature. — The use made of the art by Bewick for the illustration of natural history is clear evidence that it will render certain orders of natural truth with wonderful fidelity. The plumage of birds, the fins and scales of fishes have never been better expressed in any

kind of art dependent on white and black than they were in the simple wood-cutting of Bewick. Since his time it has been used for the most various kinds of scientific illustration requiring very minute record of natural truth.

Outside of scientific illustration woodcut has been little employed for the direct interpretation of nature. Few artists except Bewick, and George Manson a little in his youth, have gone to nature with the intention of translating natural appearances directly into wood-engraving. The common practice has been to sketch with the intention of making an effective black and white drawing upon the wood, usually with a hard pencil point, Indian ink, and opaque white, and this was handed over to the wood-engraver to make the best he could of it, nevertheless by constantly drawing for the engraver such an artist as Birket Foster would know the resources of the art, and have them frequently in his thoughts.

What has been said about the relation of water monochrome and pen and ink drawing with nature is applicable to two great divisions of wood-engraving, except that, however great its delicacy, it can never be so delicate as washes in Indian ink, and however careful facsimile cutting may be there will always exist some inferiority to the original pen-drawing. Perhaps the truest account of the matter will be to say that wood-engraving can represent a great deal of natural truth, and many kinds of it, but not directly. Nobody engravés woodcuts straight from nature, and the truth of nature in passing through the medium of another art to the wood-engraver must always incur a loss, like literature in translations. Still the art of wood-engraving, by its extreme suppleness and versatility, has done a great deal to spread amongst mankind a better appreciation of natural beauty. The better class of illustrated books and periodicals form in course of time great popular museums, not only of art, but of nature also.

CHAPTER XXV.

ETCHING AND DRY POINT.

IN etching the line is bitten into metal by an acid ; there is never etching without corrosion. In dry point the line is scratched with the sharp point of some instrument which may be a diamond but is more commonly steel.

The two arts, as the reader has already perceived from this brief account of them, are quite distinct in their nature, and so might have occupied separate chapters, but I prefer to speak of them in one for a special reason. Although so different these arts go together in the same work like glazing and impasto in painting. Sometimes they are kept separate, and you have pure dry point without the least trace of etching, or you have etched lines without a single dry point scratch, just as in painting you have works entirely in transparent colours and others in which all the colours are opaque. I propose to describe etching and dry point separately to begin with, and afterwards to speak of the results which may be obtained from their combination.

An etching may be made upon any kind of metal, and even upon stone, but the best substance to etch upon is copper. Steel resists printing better, but is not nearly so agreeable to work upon, and does not yield such beautiful prints. There is a certain softness, richness, mellowness of tone in an impression from a copper-plate, unsteeled, which is not equalled by the drier printing of the harder metal. At one time I rather undervalued this distinction, but Mr. Goulding, the best printer in

England, convinced me of its importance by experiments made in my presence.

Zinc has been employed by some artists and is liked by them because it gives a rich and picturesque line. I admire a good etching which has been done on zinc, when the subject is of such a nature that the quality of the zinc line, which is rugged, is suitable to it; but I have not found zinc a pleasant metal to work upon, because, in my limited experience of it, the biting went forward unequally in different parts of the plate, a defect which may be attributable to differences of density. Other artists complain of the difficulty they experience in laying the etching-ground on zinc.

Since we possess in pure copper the most absolutely perfect metal for etching that can be desired or imagined it seems a waste of energy to seek for any other material. Copper of the best quality is at the same time hard enough to yield a sufficiently numerous edition and soft enough for the workman to do whatever he likes with it. Copper is a delightful metal to work in. If your plate happens to be rather too large for the subject you can saw it quite easily; if it is too thick at the edges you can bevel it; if you want to efface a passage you can take off shavings with the scraper almost as easily as a cabinet-maker removes them from hard wood; and if your shaving has made too much of a hollow you can restore the level of the surface by a blow of a hammer at the back. Copper is not so rapidly soluble in acid as either zinc or steel, but it is quite soluble enough, and the acid leaves in it a line of a quality more pure than that in zinc yet rich enough in printing. The faintest scratch on copper yields an impression, a perfect image of itself in printing-ink, yet a deep line can be effaced so perfectly that not the slightest trace of it will remain. This admirable metal unites the most delicate qualities to the most robust. However exquisite your sensations, however refined your taste, your plate of polished copper will be equal to all your demands upon its delicacy; and if you want strength of

expression you have at your disposal, not one only, but a dozen powers of darkness.*

The principle of etching is familiar to people who are entirely unacquainted with the fine arts. If you desire to protect iron from rust you cover it with some composition, and if by accident there is some place which has not been covered the rust will attack that place and eat into the metal there. Suppose you took a plate of steel and painted it, but not quite perfectly, so that a few spots were left unpainted, the rust would attack those spots, and now if the paint were removed from the rest of the plate, and you covered it all over with printing-ink, and then wiped the ink off the smooth surface everywhere, but did not get it out of the rusty pittings and hollows, you would find on taking a proof that you would have a perfectly accurate image of every one of them. Printers of steel plates are only too well acquainted with this, for if by neglect a steel plate is allowed to rust anywhere, the rusty places all print with the most provoking perfection. This is Nature's etching, and there are many other examples of unintentional etching in the world.

Lines were made by corrosion in ornamental work (in armour, for instance) long before anyone thought of the process as being likely to serve for the multiplication of drawings. When first employed for artistic processes, etching would be simply considered as a more rapid substitute for the laborious process of the burin. Afterwards, when the art had been employed by artists whose genius was exactly in harmony with it, men began to perceive that etching had certain qualities of its own, quite

* One of the most interesting and valuable lessons I ever received in technical matters was from Waltner. We had been talking about etching, and this led him to say what variety of resource there was in the art, and to prove it he showed me the same *tone*, so far as mere darkness was concerned, reproduced in several different plates with the most various quality. Such a master as Waltner has all these different qualities of dark shading perfectly at command when he wants them, and has only to make his selection, which is determined by the character of the subject.

different from those of burin engraving, which gave it a peculiar position amongst the fine arts. Then came a change of fashion, when etching was neglected, despised, and ignorantly misunderstood. Finally, the increase of art-culture in the nineteenth century re-established it as one of the favourite modes of expression adopted by men of original artistic genius.

I have already said so much about etching in other works, that it will be well for me to study brevity here, but, although this chapter will be short, the reader must not estimate the importance of the art by the number of pages devoted to it in this volume. Etching is the only form of engraving in which an artist can sketch. Nobody can really sketch with a burin either in wood or metal. All that one can do with a burin is to imitate slowly and cautiously, in cold blood, the swift and fiery expression of a man of genius, the difference in state of mind between the artist and his copyist being the difference between the careless ease of a man who signs a letter and the elaborate accuracy of the facsimile engraver who imitates a signature. The burin-engraver who pretends to be free and spontaneous may lawfully deceive us for our pleasure, because the appearance of facility is agreeable to the human mind, but still he deceives us ; all honest burin work proclaims itself at once for what it is — a weary toil that can never keep pace with the nimble agility of thought. Who ever heard of a burinist taking his plate out into the fields, or a wood-engraver his block ? Etching is the only form of engraving which has ever been practised directly from nature. Etchers go out with their materials like painters or any other draughtsmen.

Here, then, in this charming directness and rapidity, is the attraction which led the old artists to the etching point and acid, and which, since their time, has induced so many distinguished painters to try these materials. We know, however, that although etching is an artist's art, and has been loved and practised by men who were eminent in other pursuits, it lay for a long time, for several generations, under the cloud of an all

but absolute unpopularity. If you had gone into a drawing-room full of well-bred people, at any time in the first half of this century, and happened to mention etching, the probability is that no one in the room would have known what the word meant. The ladies would have thought you meant drawing in pen and ink, the men would have been puzzled, and inclined to dislike you as one of those persons who use technical terms out of season. The only safe way, at that time, was to call etchings and dry points 'engravings,' by which two false ideas were conveyed — the first, that they were executed slowly with a burin ; the second, that they were not original works, but copies from designs by other men. Nobody except a few artists and collectors knew that great painters in past times had produced original works in etching and dry point which, as records of their thoughts, as expressions of their genius, deserved not less attention than their most celebrated pictures.

The few collectors who possessed etchings in those days knew by experience that they were seldom appreciated, and opened their portfolios only to friends who shared an eccentric taste. The general public, being rarely troubled with the sight of an etching, could view the art with indifference, but a little later, when it was rather more talked about, this indifference often gave way to hostility. Etching was condemned as a sort of bad engraving, as something which would be engraving if it could, and finally it came to be decided in the Philistine mind that 'etching was *an imperfect art.*'

I have spoken elsewhere in this volume of the fallacious form of criticism which decides that some of the graphic arts are 'imperfect' because they cannot imitate with equal facility the whole of the qualities of nature. If you once admit that theory you cannot stop, consistently, until you have rejected, one after another, the whole of the graphic arts, and cast them behind you, so that you may stand face to face with Nature, and be rid forever of all human intervention between her perfection and what you suppose to be your own perfect appreciation and com-

plete enjoyment thereof. There will then be two perfections, hers and yours, the imperfect arts being no longer in the way. Such a state of things is conceivable ; it is the condition of the Negro of the Upper Nile, of the American Indian on the Red River. If, however, we admit graphic art at all, we must admit its limitations. Oil-painting cannot give the light of nature, nor charcoal its hues, nor transparent water-colour its substance, nor fresco its depth, nor silver-point its chiaroscuro, yet all these arts have been pursued contentedly, nay, even enthusiastically, by men whose sight was as clear as ours, and whose knowledge was at least equal to our own. So it is with etching, an art practised by men who had proved their strength in other fields, but who found in etching a form of artistic expression which, after careful experiments, they ascertained to be satisfactory. They liked it because it enabled them to disseminate drawings which were at the same time printed by hundreds and yet really originals ; they liked it because it was both very delicate in faint bitings and very strong in deep ones ; they liked it because it allowed ample freedom for comprehensive sketching, and yet permitted the most severe and studious drawing wherever it might happen to be necessary. Now, as to the limitations of the art. They must have found out — these keen-witted, observant artists — they must have found out, after a little practice in their youth, that etching was not by any means the best of the graphic arts for the rendering of subtle and delicately various *tone*, that it was more a linear art, like pen-drawing, than a tonic art, like washing, with Indian ink. They accepted this limitation contentedly, yet not in any rigid and absolute spirit — not in that petulant temper which casts aside an instrument as useless because it cannot accomplish everything. Had they been petulant amateurs, they would perhaps have said, ‘Etching is good for line but not for shade, we will use it for line only,’ but being cultivated artists they determined to use shade with caution, and to make it suggest to the mind of the spectator a more complete chiaroscuro than that which

it actually gave. They were quite accustomed to this kind of reserve in their drawings on paper, drawings in which (as we have seen in our earlier chapters) the idea of light and shade was often given with but a few tones, and given not incorrectly, because those few were so judiciously selected, and so well placed, that the imagination readily fills up the intervals between them.

It is sometimes supposed that the difficulties of biting an etching must be so great that it is impossible, except by a mere chance, to get anything like the precise depth that we require, but the art is rich in resources which its detractors are careful to ignore. A cautious artist may, if he pleases, go down to his strong darks gradually, to avoid the risk of over-biting. The reader is aware that the copper-plate is covered with what we call 'etching-ground,' which is a mixture of wax, gum-mastic, and bitumen. It is best applied in the shape of a paste made by melting it with an addition of spike oil which is afterwards expelled by heat. The ground is then smoked by holding it over the flame of wax tapers, and if the operations have been well performed it looks like polished ebony. The drawing is done with a steel instrument technically called a needle, but which is sometimes blunt and sometimes sharp, as the artist happens to require. The point leaves the copper bare along its track, a very fine line if the point is sharp, a stronger and thicker line if it is blunter. When the drawing is finished there is nothing as yet upon the copper except very faint scratches. If the etching-ground were removed by dissolution the scratches would print, but only in just perceptible marks upon the paper. Here then comes the use of the acid, and technical writers tell you that if you let the acid bite a little, and then protect the palest parts of your work with a varnish that will resist acid, and then let it bite again and protect the next in depth, and so on, leaving the darkest lines to be bitten till the last — they tell you that if you do this you will get all the tones that you desire. Well, perhaps you might, if you had supernatural powers so as

to enable you to know *exactly* how the acid was doing its work as if a printed proof of the plate were offered for your inspection every ten seconds whilst the biting was in progress, but as, in fact, you cannot *see* anything, and can only calculate, it will often happen that calculation is not quite a safe guide, and when at length the etching-ground is removed and the proof taken you may discover that the result has not answered your expectations. This difficulty of calculating the effects of acid is the special difficulty of etching, but in all human occupations when a peculiar difficulty is known to exist the ingenuity and forethought of able men are employed to meet it, and counteract it, as we see constantly in mechanical and scientific invention. In the present case the difficulty is met by so arranging matters that several different proofs may be taken during the progress of the work, and by avoiding extreme depth and extreme delicacy during its earlier stages. The first bitings, perhaps two or three in number, or even one only, are done exclusively for middle tint, and then the etching-ground is removed by dissolving it in turpentine. The plate is then thoroughly cleaned and a proof taken, which shows the exact condition of its biting so far, and the parts intended to be darker can easily be bitten again in the same lines. The reader may ask how this can be done when the etching-ground has been removed? Will not the acid attack the spaces between the lines as well? It would if they were not covered, but by using a valuable instrument, the roller, the spaces can be covered whilst the insides of the lines are left bare and exposed to a fresh attack of the acid. Another proof may then be taken, and if the darks are not yet deep enough they can be enriched by successive re-bitings, proofs being taken in the intervals to report progress. The middle tints and extreme darks being now settled we may pass to the delicate greys, which, according to the order of this process, will have been reserved for the last. The plate is now completely covered with etching-ground so as to fill up all the lines and protect the spaces between them, an operation requir-

ing skill and care, but quite feasible if you know how to set about it ; and when it is effected, the artist puts in those lines which are intended to represent his pale shades. With a proper acid bath * the pale shades can be bitten just as easily and surely as any others. When they are done a new proof is taken and the plate is now completed so far as pure etching is concerned.

A plate in this condition of pure etching ought to be sound in drawing and to have quite enough light-and-shade to suggest complete light-and-shade to the spectator, but it can never have that fulness and precision of minute intermediate tones which may be attained with facility in the true chiaroscuro methods such as water or oil monochrome and charcoal, and it is a waste of effort to attempt rivalry with them on their own ground. Nevertheless, a still closer approach to perfect shading may be made by the employment of dry point, which has always been recognised as an etcher's auxiliary art, and which every accomplished etcher has taken care to learn. The best way to understand the value of dry point as an auxiliary is to study it first as an independent art.

Mr. Hardy's plate in this volume is in pure dry point. Mr. Hardy took a plate of copper and drew upon it with a sharp steel point, every stroke being a scratch on the polished surface. Now there is something peculiar in the nature of a scratch as distinguished from an etched line. When a line is bitten the copper is dissolved out of it by the acid, and therefore is simply absent, but with a dry point line it is not so. Here the disturbed copper is raised up out of the furrow and pushed either

* I spare the reader all chemical details in this chapter as I have gone into them thoroughly in works concerned specially with etching. I may, however, say here that in the biting of etchings, as in all other scientific operations, the same materials and conditions always produce the same results. Artists frequently complain of the uncertainty of etching because they do not take care to have the same strength of acid and the same temperature. The metal, too, should be of uniform density. It is not the fault of the process if the operator will not test his acid or use a thermometer.

to one side or the other, or to both sides at once, and the way in which it is pushed aside depends upon the artist's manner of holding the needle. This raised copper is called the bur, and it catches ink when the printer inks the plate. You notice a certain softness at the edge of the line, a shade, as it were, outside of the line ; well, this is the consequence of the bur, for if there were no bur that soft shade would not exist, and you would only have an impression of the clear sharp line itself, which would have the appearance of a fine engraved line. The bur can be removed very easily, and then you get something like engraver's work ; or it can be left, and then you get something which resembles mezzotint in quality and is really the same thing as mezzotint in principle. Both kinds of dry point are very valuable resources, and are often employed by skilful etchers at the finishing of a plate. It has been said that dry point is to an etching exactly what glazing is to an oil picture, it gently darkens and softens the work, and throws over it, as it were, a veil of a different quality from its own ; but though this is true it is not the whole truth, for dry point enables an etcher to add passages of extreme delicacy which would otherwise be beyond his reach. The diamond may be used for some of these, as it cuts delightfully and is held like a pencil. But not only does dry point add to an etcher's resources at the upper end of the scale, it enables him to add richness and softness to his darks. The reader may see for himself, in Mr. Hardy's pure dry point, the sort of quality which is attainable in it.

Again, an etcher does not altogether reject the burin, though he employs it with great moderation, and generally conceals its use so that the hardness of its line may not establish a dissonance. Nevertheless, the burin may be employed as follows, and is regularly so employed by one of the most distinguished etchers in Europe. After etching to a certain moderate depth, he deepens his dark lines gradually with a burin, and then rebites them slightly with acid to restore to them the quality of an etched line. The degree to which the burin *might* be used as

an auxiliary, without by any means relying upon it exclusively, will be better understood by an example. The copy of Dürer's 'Shield with the Lion and Cock,' in this volume, is an etching finished with the burin, but here, of course, the burin work is left without re-biting, as the object was to imitate a line-engraving.

After all biting is done with, a part of the etching may be made paler in two different ways : either it may be worked upon with the burnisher, which brings the sides of the lines nearer together, and by making them narrower diminishes the darkness of the shading, or else it may be reduced by rubbing the place with charcoal in turpentine, which takes off copper. The burnisher is better than charcoal when it can do enough, because it does not alter the nature of the bitten line, which in etching is very peculiar. An etched line is not, in section, like a V, neither is it like a semicircle, but it is like a Moorish arch inverted. Suppose you took a copper tube and filed one side of it till there was an opening all along, and then went on filing till a good deal of copper was removed, but not half of it, then the inside of that tube would be like the inside of an etched line. The opening at the top would not be equal to the diameter of the tube. Now, if you went on filing till half the tube was filed away, the opening, instead of being narrower, would be positively wider, and this happens when the charcoal is used moderately in etching. The lines get wider and shallower at the same time, thereby losing much of their peculiar character. But again, if you go on rubbing, you get down past the place where the line is broadest, and after that it gets rapidly narrower, but it is so shallow now that it does not look as if it had been freshly etched, and assumes a worn appearance, as if the plate had been too much printed from. Therefore we say that, although charcoal answers its purpose of making a plate paler, it does so at the cost of freshness, and is better avoided.*

* There is another very curious effect of charcoal, which is this : If the plate has already been etched upon in lines of various depth, and you afterwards reduce it with charcoal, you will alter the proportionate effects

Etching is equal in freedom to any of the graphic arts, superior, indeed, to most of them in this respect, and the consequence is that it has been pursued in the most various ways, according to the idiosyncrasy of the artist. The reader will be quite prepared to hear that from my point of view this variety is highly desirable, and that if uniformity of manner could be attained I should consider it a great misfortune. So long as any one of the fine arts is really and truly alive it is sure to be various, because every artist will express his own way of seeing things, and exercise his own peculiar kind of imagination ; but when art becomes a lifeless tradition we find artists expressing themselves in the same way. Again, if etching were an imperfect reflection of nature, as photography is, and nothing more, if the minds of artists were only so many mirrors, their work would not vary more widely than photographs taken from nature ; but the graphic arts which are really alive express the feelings of men more accurately than the facts of the external world. With these views I am not likely to lay down narrow laws which the etchers of the future would be sure to disregard, and be right in disregarding, but there are certain considerations which may prevent a waste of effort.

Etching is a linear art, and therefore it is a pity when those who follow it neglect to cultivate the power of expression by line. This is in great part an affair of idiosyncrasy, and I am disposed to believe, notwithstanding the famous artists who, like Titian, have combined great linear with great pictorial

of the lines, in this way—the shallow lines will show the effect of reduction very much sooner than the deep ones, and if you do not polish the shallow lines off altogether they will soon look as if they were half worn away by printing. Again, if there are differences of depth which looked nearly equal before (and this may happen), the reduction of the plate with charcoal may establish a far more striking difference. Suppose one man has 22,000/- and another has 12,000/-, and each of them loses 10,000/-; the loss is the same in money in both cases, but it reveals the poorer man's poverty to the eyes of the world, whereas the richer man's loss is not nearly so apparent.

power, that a painter would be all the better for seeing things in masses instead of lines ; but if a draughtsman sees always in patches and masses, and does not enjoy linear interest and beauty, he would do better to adopt charcoal or mezzotint than etching. Many attempts have been made to do without the expressive line in etching — to use lines for shading and texture only, and not for expressional accent — and a very considerable degree of success has attended some of these attempts, but, after all, they have never the animation which belongs to the line, and they do not awaken the same interest. The reader may judge for himself by a reference to Rembrandt's famous pig, reproduced for this volume. He may like the subject, or he may not, but in any case he will at once perceive that there is great vivacity in the drawing, and that he feels stimulated and interested by this vivacity itself, by the action of the human hand which traced the singularly expressive lines, and by that of the directing brain. Now, imagine what this same subject would look like if it were copied in charcoal tones without lines. Would there not be a distinct loss, and particularly a loss of expressional force? I am quite sure there would.

There can be no objection to throwing a certain amount of shade over lines, but they ought to remain visible and to do most of the work. Rembrandt tried many experiments in etching ; sometimes he did with very few lines, and did well, at others he shaded very laboriously, but to my taste the most delightful of all his etchings are those in which line and shade are lightly and somewhat capriciously mixed, whilst the paper is allowed to play an important part. The best work in etching is the easy and unpretending expression of knowledge which has been perfectly assimilated. Many a fault may be tolerated if only the work is fresh, observant, and sincere. There are passages of faulty biting, and of inaccurate drawing, in some of the etchings we most heartily value, whilst plates are often produced in these days in which you can discover but a single defect, which is that of a general tiresomeness.

There is a certain sobriety which is not tiresome, and as examples of it I have given two plates by Hollar, the more willingly that, although he was spoken of in *Etching and Etchers*, he was not represented amongst the illustrations. The reader will bear in mind that Hollar was an engraver, and therefore disciplined by great labour on metal, for he was a slave to his profession ; but although this discipline may have prevented exuberance, and made him draw patiently what Rembrandt would have sketched with spirit, he was so perfectly sincere and straightforward that his work has considerable charm of a quiet kind.

Etching has been much employed of late for the translation of pictures, and some men, especially Rajon, Flameng, and Unger, have made great reputations in this department of art. They have overcome the difficulty of tone, at least quite sufficiently to satisfy the mind, and as the liberty of the etching point is exceedingly favourable to the imitation of brush-work, they have often been able to give a very clear idea of a painter's handling. Anyone who understood art, yet had never seen a picture by Frans Hals, might get a very accurate idea of his manner from the etchings of Unger. Besides handling, the etching process is extremely favourable to the imitation of textures, as the reader will easily see for himself on referring to such plates as Mr. Slocombe's 'His Grace,' after Pettie, where satin is admirably interpreted, or to many plates by Waltner from the old masters, in which the intricacy and facile fall of lace, the light-absorbing richness of velvet, the sheen of armour, the lightness of feathers, the tough strength of leather, the supple softness of comfortable felt, are all expressed so truly that not only the eye but even the very sense of touch receives at least an ideal satisfaction. The beauty of the naked figure is too delicate for pictures of the nude to be satisfactorily rendered in etching, but they may be admirably interpreted, as Waltner treats them, by means of dry point with the bur removed for the flesh and etching for the background. This

method gives an increased delicacy to the figures by contrasting their purity with the vigorous picturesqueness of the etched work around them.

Painted landscapes have often been treated in etching on a mistaken principle. The etchers have laboriously tried to imitate them tone by tone, which is an error, because a painter easily surpasses, in minuteness of subdivision, any fine distinctions within the reach of pure etching. The proper way to etch from a painted landscape is to deal with it exactly as if it were a natural one, or, in other words, to omit all tones which cannot be given accurately, and be satisfied with suggesting them. Acting on this principle, MM. Gaucherel, Rajon, and Brunet-Debaines, have interpreted (I do not say imitated) some of the most difficult amongst the later works of Turner in a manner which recalls them vividly to our recollection, which is far better than heavy, unintelligent copyism. In such etching as this the dry point plays an important part, and aquatint (which is really etching in spaces instead of lines) is quite admissible.

People who are accustomed to regulate their conceptions of things by names without troubling themselves to inquire into their nature, are not aware that etching is much employed by engravers. They use it generally in the first stage of a plate to get the drawing in, but they bite lightly so that the etching may be afterwards overpowered by the work of the burin. There are, however, many passages in some plates by engravers which are etched and left so, and not unfrequently re-bitten, especially foliage, foreground plants, the fur of animals, rugged touches upon rocks, and, generally, what we are accustomed to call picturesque things. As in a painter's etching the work of the burin is often dissimulated by a re-biting in the same lines, so the engraver may hide his etched work by retouching it with the burin when the nature of the line allows the burin to go well into it.

A few words about the printing of etchings are necessary in conclusion. There is nothing that critics seem to enjoy more

than administering stern reproofs to workers in the fine arts and forbidding them, in a voice of authority, to take advantage of some resource which happens to be particularly convenient. The fine arts are an ill-chosen field for the exhibition of this dogmatism, for it always happens that when you have laid down a rigid rule of some kind several artists of ability will infringe your rule, and do it with such undeniable taste and judgment that the public will side with them, and you, the authoritative critic, will be left to preach in the desert. Some writers have laid down the law that in the printing of etchings the plate should always be wiped perfectly clean, a law which artists will not obey, because by leaving a little tone of ink on the darker shades they are supported on the principle of line and flat wash, often to their very great advantage. I need hardly observe that when an edition has to be printed this support to the line must be of a very simple nature, but it is well worth having. The argument on the other side is that the artist ought to etch all the tones himself upon the copper, to which he answers that a little ink judiciously left on the surface gives a delicacy and softness to the proof which are not attainable by any other means. If the printer is able to carry out the intentions of the artist, why should he not do so? He may remain quite as strictly subordinate as the printer of a poem who, without taking upon himself to interfere with the thoughts of the poet, gives them, by the light of type, much additional clearness and brilliancy, whilst he helps even the very music of the verse.

Soft-ground etching is an imitation of qualities in chalk or lead-pencil which do not belong to the ordinary needle-line. The common etching-ground is employed, but it is softened by mixture with tallow. In cold weather the tallow and etching-ground are in equal quantities, in warm weather less tallow is used, and if the weather is hot it may be one-half the quantity of the etching-ground. The plate being covered and allowed to cool, a piece of paper with a fine grain is wetted and stretched upon it as if for water-colour painting, and on this paper the

subject is drawn in lead-pencil with a moderate pressure, increased in the darks. The paper is now removed and it takes the etching-ground from the plate in a peculiar way, so that if the copper is bitten it will give the appearance of pencil or chalk lines in the proof. This kind of etching has often given good results, but it is not much employed because lithography and heliographic reproductions of drawings resemble it in quality. Soft-ground etchings are rarely left without re-touching of some kind, either by means of the ordinary etched line in a hard ground applied afterwards, or by the dry point, or by the *roulette*, which is a little wheel with points in it imitating the effect of mezzotint in line.

Comparison of Etching and Dry Point with Nature. — In the chapter on Woodcut I showed that the means of expression which belonged naturally to that art are the white line, the white space, and the flat black. Etching is in striking contrast with wood-engraving in technical resources except as to the white space, which it has without labour. The powers of etching are the black line, the dark or light shade composed of lines, and the white space.

Of all engraved lines the etched one is that which deals most easily with the variety of nature. You can etch a tree as easily as you could draw it with a pencil point, but you could not engrave it, so as to make it look natural, with a burin. As the etched line follows quickly all the ins and outs of picturesque material, it deals admirably with ruinous architecture and with all kinds of old streets, cottages, rustic material in farm-yards, animals, and either rustic or romantic costume. When we come to effect the case is different. It has already been explained that etching of itself cannot follow the extreme subtlety and delicacy of natural effect because that always depends ultimately upon the finest possible distinctions of tone and the most tender gradation; but with the resources of auxiliary dry point, and especially of interpreting what cannot be imitated, the etcher

can suggest to an intelligent person the whole range of natural effect, a fine intellectual exercise for him, and a keen pleasure for the spectator, whose intelligence is also exercised in meeting him half-way.

Etchers have a white line or a white spot at their command, though it cannot equal the fineness of the white line in wood-cut. With a brush charged with any varnish able to resist acid, an etcher can 'stop out' white strokes across work already drawn but not yet bitten. I do not much approve of this practice, for a reason which the reader will appreciate. The executive expression of etching is linear, and when an etcher shades he does so by lines. Stopping out for whites comes across those lines and suddenly interrupts them, after which they seem to start again with an unnatural abruptness on the other side of the stoppage. Nevertheless, this process is used with great skill and judgment by Edmond Yon in the herbage of his fore-grounds. A system more surely in accordance with the genius of etching is to avoid indicating minute white lights specially, but to take account of their effect on the general scheme of light and shade, making the work generally lighter in tone where they are numerous.

Jules Jacquemart proved by his own practice how wonderfully etching may be made to imitate the qualities of substances, such as jasper, onyx, bronze, crystal, and lapis lazuli, with the most delicate work of the silversmith and of carvers in ivory or wood. The impulse given by Jacquemart to still-life in etching has been followed since by Gustave Greux and other contributors to *L'Art*, who have occasionally given wonderful plates from objects, such as state carriages, sedan chairs, and pieces of artistic furniture. The same direction has been followed in still-life studies by pupils at South Kensington, under the guidance of Mr. Slocombe, and with success. This is a kind of etching which requires close observation, the faculty of seeing the artistic qualities of objects, and not a little manual skill, but it does not require invention, and therefore is much

more within the reach of ordinary men than original compositions. There may be, however, a degree of skill in such work which goes far beyond ordinary endowments. M. Burty says that he once saw Jacquemart at work on an etching from a highly decorated pistol in which a little figure occurred, and asked how Jacquemart could see to draw the figure. 'I don't see him,' was the artist's answer, 'but I feel him; I have him at the end of my point.' The plate is before me as I write, and is a marvellous piece of minute work, such as nobody else ever executed.

The minute truth attainable by the etching-needle in the representation of objects has led to its employment for medical purposes. Dr. Whittaker, the clinical demonstrator at the Glasgow Infirmary, has found it very valuable for the illustration of disease, since every touch on his plates is his own, and not liable to alteration by some engraver destitute of pathological knowledge. There would be a great field for the employment of etching in scientific illustration of the most precise kind if men of science were careful to train themselves as draughtsmen.*

* Whilst engaged in writing this chapter, I learn by a letter from Staffordshire that my books on Etching have had an influence on the manufacture of pottery there by leading to successful experiments in etched decoration. The use of it for pathological illustration was also a consequence of those books, so that, after all, perhaps these aesthetic pursuits may turn out to be of some practical use in the world.

CHAPTER XXVI.

LINE-ENGRAVING.

THE expression ‘Line-Engraving’ is used for engraving with the burin, but this is one of those cases in which a comprehensive expression is narrowed to a special use, as when a Frenchman uses the word ‘essence’ he means turpentine. According to the strict sense of the words ‘line’ and ‘engraving,’ etching and woodcut have as fair claims to it as burin work on steel, for etching is work in black line which is engraved by acid, and woodcut is work in white line engraved with a burin. Then, again, there can be no question about the claim of dry point to be called line-engraving, for it is all in line, and every line is cut in metal. I take notice of this because words have such a power over our estimates of things. Most readers are likely to imagine, when they see ‘Line-Engraving’ placed conspicuously at the head of this chapter, that the art treated of in it will be more linear than etching. The real difference is, that in etching the line is free, whilst in line-engraving it is formal.

The etching-needle is held in the hand like a pencil or a silver-point, and is therefore an instrument which can be used by any artist accustomed to the ordinary tools of a draughtsman. The burin is held like nothing else, like no other tool ever invented ; the working end of it is held between finger and thumb, and the impulsion is got by pushing against a buffer with the lower part of the palm of the hand. The etching-needle requires no appreciable force, and will turn in any direction at once ; the burin requires considerable force, and will only turn in curves. When the subject absolutely requires

greater agility of line, the line-engraver uses the etching-needle or the dry point.

Every kind of art has its own expressional quality, but there is an essential distinction between those which are free and those which are under some severe manual restriction. All the graphic arts hitherto mentioned in this volume are free arts, with the exceptions of fresco-painting, wood-engraving, and dry point. Fresco is hampered by having to be done in patches, wood-engraving by the use of the burin and the difficulty of correction, dry point is just a little hampered because a scratching point is not so free as one that glides over a surface. But we have not yet met with an art so fettered by the nature of its own instrument as burin engraving on metal.

The absence of liberty is at the same time an evil and a good. It puts all spontaneousness, all variety of inspiration, simply out of the question from the first. You might as well tell an author to compose his book with types, as order an artist to express passing thoughts and caprices with a burin. An original artist may use the burin for the expression of his own ideas, as Dürer did, but the entire subject must be invented and determined in all its details before he touches the copper. So much for the evil side of the question. Spontaneous thought and sentiment cannot stir, and the revival or remembrance of thought and sentiment which were once inspiration has to take their place. On the other hand, it may be fairly said in favour of line-engraving, that it is a mental discipline of a high kind when the engraver has a worthy estimate of his profession. In the first place, he must have the clearest possible understanding of the picture which he has to interpret, or, in other words, he must be, at least with reference to one class of art, a thoroughly sound and complete critic. Again, it is not enough for an engraver to have intermittent flashes of insight, like a man who sparkles in conversation — he must keep his mind in the steady brightness of that ideal electric lamp which modern invention seeks. He must be able, at any time, to throw himself into

artistic sympathy with his original, as an actor or public reader must think the thoughts of his author. All this is assuredly not the same as the painter's or the etcher's state of mind, but it is a state of very high discipline — I had almost written of *scholarly* discipline, so closely does it resemble the temper of the true scholar who follows always the work of another, but follows it with delicate and patient appreciation. He who has the true nature of an engraver will live, ideally, with the painter of the work before him, as the scholar lives with Virgil or Dante. The length of time he has to spend over it will be in no wise irksome to him, for every hour passes in the presence of a companion spirit. And this being so, conceive (if you can) the wretched fate of a delicate-minded engraver who is set to interpret vulgar work, or who is compelled to interpret noble work by inadequate methods because they are rapid and cheap.

In the plates which have been engraved purposely for the illustration of this chapter these evils have been carefully avoided. Each of the pictures has been one that the engraver loved, and he has been asked to interpret it exactly in accordance with his own conception of his art, so that in these modern works the reader is sure of good examples. The reproductions of engravings by dead masters are intended to show the movement of the art from its early principles to modern principles, so that the reader may see for himself how great a change has taken place, and how completely the change is due to altered views or feelings about the province and limits of engraving.

Most of my readers will be aware that between connoisseurs and the general public there is a wider and more complete divergence of taste in reference to engraving than there is about most of the graphic arts, certainly a far wider divergence than there is about painting either in oil or water-colour. The sort of engraving which connoisseurs collect would never by any chance be bought by ordinary English people of the well-to-do classes for the adornment of their rooms, it would only be bought by studious persons, by the sort of persons who frequent

the Print-room at the British Museum or the *Bibliothèque Nationale* at Paris, and they would generally keep it in cabinets or portfolios, and show it only to the few acquaintances whose tastes were similar to their own. On the other hand, the general public, the squires and clergy, the prosperous professional men and tradesmen, who buy prints in large quantities from the publishers of modern works, buy what connoisseurs in engraving seldom care to purchase. Now and then it happens that a modern print is of the kind which connoisseurs appreciate, and then they admit it amongst their classics, but the brilliant mass of modern production does not tempt them. There is of course a reason for this ; there is a reason for everything in supply and demand, and in this case the reason is that the popular taste in graphic art is never really satisfied unless it gets texture, local colour, and light-and-shade, whereas the taste of instructed persons, whose powers of analysis and abstraction are greater, is satisfied with a system of work, founded upon abstraction, which gives form without local colour, without texture, and with a sort of shading which has very little reference to nature. This accounts for the popular indifference to the early classics of engraving, and the indifference of connoisseurs to popular prints may be accounted for very generally by the second-hand character of the work in such prints, because the engravers of them have set methods which deprive their work of individuality. The methods are often well adapted to their purpose, and yet in spite of this they lack interest, because they have become common and familiar.

The early engravers whose names are famous amongst collectors appear to have considered that the object of engraving was simply the expression of form, and the exhibition of an especial kind of manual skill quite remote from the rich handling of accomplished painters. In consequence of these views of their art they developed certain styles of their own, exceedingly abstract, which represent natural material only by one or two of its qualities, such as outline and projection. They had no

visual synthesis of nature, no system of interpretation which took the whole of the visible qualities together and gave the sum of appearances, as the best modern painting does. As early Italian painting was coloured drawing, so early Italian engraving was shaded outline. The difference between such engraving and the best modern work is not so much in quality as in kind. The modern work includes so much more that it is continually over-stepping the limits which confined its predecessor.

It is not surprising if the early engravers attained skill within the limits of an exceedingly narrow art. The early Italian works which are now attributed to Baccio Baldini,* and which used to be called 'The Playing Cards of Mantegna,' are amongst the classics of primitive engraving. A good reproduction of one of them, the 'Primo Mobile,' appeared in the *Portfolio* for May, 1877; and if the reader has the opportunity of referring to it, or to the original, he will perceive that the idea of its execution is derived from drawing in line and wash of the simplest description, the line being represented by a burin line very nearly equal in strength everywhere, by which all the forms are first carefully mapped out, and the wash by a grey shade of rather close lines with a good deal of cross-hatching. There is no local colour, and there is no subordination or sacrifice of parts, all are treated equally, as they are in heraldic engraving. So it is with the other designs in the series of fifty from which this design is taken, and this is one of the best. The lines of drapery in the

* Nobody really knows either who designed this series of engravings or who executed them. It has been supposed that the designs may have been due to Botticelli, but there is no proof of this. It seems likely, however, that the original designs were of a more accomplished character, technically, than the engravings, both because the pencil or pen is a much easier instrument than the burin, and also because there is evidence of a cultivated art-power in the designer which seems to go beyond the careful but unequal handiwork of the copyist. M. Duplessis says that the plates really known to be by Baldini are not by the same processes, but that these plates are more like Baldini's work than any other.

'Astrologia' are fine, but the shading is poor and inexperienced, whilst the shading of the ground in that print is simply mechanical. Even in the draperies themselves in some of these engravings we see the struggle against technical difficulty. They are sculpturesque in intention, but when you compare them with Greek work in marble, the troublesome, recalcitrant nature of the burin is at once apparent ; it has not got pleasantly round the corners, the angles are stiff, and the whole substance has more the character of strong paper creased purposely into set folds than of drapery falling into them of itself. It is a relief to the artist when he gets to the engraving of pure ornament, as in the serpentine stalk and leaf pattern which decorates the foreground of the 'Poesia.' But even if the workmanship of these plates had been more perfect than it is, if it had been as perfect work as Henrquel Dupont could turn out now, it would still have been one of the narrowest specialities, and one of the most remote from nature, in all the range of graphic art ; and if the lovers of classical engraving succeeded in bringing the work of the burin back to this primitive stage, it would be like a reaction from the modern oil-picture back to the Etruscan vase.

The principle of Mantegna was a combination of line and shade which is often found in drawings. The subject is first represented everywhere by organic line, and then diagonal shading is thrown over that where it seems to be most needed, but not so as to overcome the organic line or give either complete chiaroscuro or complete modelling. In this kind of engraving the organic line includes all design of a decorative character, such as ornaments and even the patterns of dresses, which are strongly made out ; the shading gives projection (to some extent) and also relief, being darker in some parts than in others, but the lines of the shading are never used, as they often are in modern engraving, to indicate the direction of surfaces. Mantegna's plan was to arrange matters so that the shade might interfere as little as possible with the drawing, and the diagonal

line seemed the best means to this end. Professor Legros, in recent times, has made great use of the same system. It has been accurately described by Professor Colvin, as follows : —

'The Italian engravers of the fifteenth century were trained in a different technical practice from the Germans. They learned to draw with the burin upon copper exactly as they were accustomed to draw with the brush or silver-point upon paper—that is, to get the outline pure, clear, and firm, and then to shade with simple straight lines, slanting downward either from right to left or from left to right. This is a method inapt to express the full relief and roundness of objects in nature, and the Italian engravers generally content themselves with expressing objects in a kind of partial or low relief. It cannot be denied, however, that some of the legitimate effects of engraving are thus lost. And that the Italians themselves by-and-by felt the poverty of their system is proved by the fact that, at the beginning of the sixteenth century, they turned eagerly to the works of Albert Dürer, and imitated from him the richer German system.'

The reader will find it convenient to remember the early Italian school of engraving as a school of outline, which in all the graphic arts is the beginning of culture. If the outlines are beautiful and full of exquisite modulation, then the art is in a beautiful childhood, promising other kinds of beauty in its maturity, and more particularly the beauties of modelling and composition. Experience does not seem to prove that perfection of outline naturally initiates a progress towards power of effect in light and shade or colour. Its full results are to be seen rather in the paintings of Leonardo than in the etchings of Rembrandt, or the delicate modern engravings after Turner.

In early northern engraving outline exists, but not often for its grace or beauty, only for definition, and the really fundamental idea is not beauty but veracity of detail.

This notion of veracity had taken possession of Albert Dürer's mind to the entire exclusion of everything like visual synthesis. His conception of a fine engraving was an engraving enriched

with the representations of many things, and in the great works on which his fame rests chiefly he introduced objects in extraordinary abundance ; the more there were of them the better, an idea quite foreign to the more classical Italian genius. Now there are two ways of dealing with multitude in the graphic arts. Either the crowd of things may be represented as if they were seen separately or they may be grouped and as it were fused together in perfect subordination to a simple pictorial scheme. When they are represented independently they always appear far more numerous and obtrusive than when in subordination, and this is why there seems to be such *quantity* in Dürer's engravings. If the details were kept in their places we should hardly think about them, but that was not the engraver's intention. He wanted us to see everything, and how everything was made, from the buckle on a bridle to the beam in the ceiling of a room. Of all engravers he is the most explanatory, the man who most clearly sees the tangible nature of objects (not their appearance), and who has the most perfect sympathy with all constructive trades and occupations. Joiners could make furniture from his engravings,* saddlers and armourers could carry out his inventions in steel and leather. I believe that the only mistake he ever made in drawing an object that he could handle was that odd blunder in the plane in the 'Melencolia,' which could never take off one shaving, as the cutter is put in it the wrong way, and would glide over the wood without biting. The setting of the hand-saw in the same plate, which looks careless, is scrupulously exact, as Continental joiners often set their saws very irregularly on purpose to make them cut better. It is really a great satisfaction to meet with an artist who understands common things, so many are unable to see them. There have been great celebrities in the fine arts who could not draw a boat, or a wheelbarrow, or a fiddle.

It requires a very careful use of language to describe Dürer's employment of shading. He was exceedingly skilful with the

* This has actually been done in the present century.

burin, and could make the lines go in any direction which the nature of the instrument allows, in which he greatly excelled all the early Italians ; but he did not understand the laws of effect, and all his shading is but clearer and clearer explanation. He would not leave a sphere in the shape of a disc, like the engraver of the 'Primo Mobile,' but explained its spherical nature patiently, as we see in the 'Melencolia,' and on the sawn stump of a tree with a skull on it in the left corner of 'The Knight, Death, and the Devil,' the lines express the concentric rings of growth. It would be a waste of space to go into any detailed criticism of Dürer's chiaroscuro. There is plenty of shading in his work, the object of it being not chiaroscuro but relief ; the dark shades on the rocks in the plate just mentioned are not the shades of a landscape-painter but those of an object-engraver who wants to show his armour and other things to the best advantage.* Effects of shade in Dürer's engravings are sometimes begun, but never consistently carried out ; they are fragmentary and contradictory, as in that well-known example the 'Melencolia.' He paid more attention to texture, but the severe method of pure burin engraving is not favourable to all textures ; it is highly favourable to some, especially to armour and neatly planed wood, but extremely unfavourable to all rich and soft things, such as velvet and felt, and to rugged picturesque things, such as the bark of trees. Dürer's treatment

* The real principle of this kind of shading will be understood by a reference to one of Étienne Delaune's combats, where it is carried out consistently with a decorative idea and quite without any intention of imitating nature. Delaune was a French medal engraver, who lived and died in the sixteenth century, and engraved many plates after he was forty years old. To relieve the men and horses in his combats he made the backgrounds as nearly a flat black as a burin engraver on metal could attain. The field on which the combats took place was a sort of white floor on which the figures cast their shadows. If you follow up this idea of relieving figures by a dark background it will take you to antique vases and to ancient Egyptian painting. It is one of the very oldest devices in the graphic arts, and in its origin it has very little to do with nature.

of hair resembled that which prevailed amongst the painters of his time. His burin followed every curl, as in the wonderful beard of the Elector Frederick of Saxony ; but if you turn from that portrait to Rajon's 'Darwin,' after Ouless, you will perceive the superiority of modern methods so far as texture is concerned. Many of the strongest points in Dürer's workmanship are to be seen in perfection in his heraldic engraving, such as the helmet and lambrequin in the plate with the 'Lion and Cock.' The helmet is one of the most perfect bits of work in existence, it shows the brilliant clearness of Dürer's conception when he had to do with a tangible object. See how all the inequalities in the metal are studied and enjoyed, how sharply all the edges are defined, and how gladly the artist has seized upon the dark shade inside the helmet to give contrast and relief. In the lambrequin he found a capital opportunity for one thing which always especially delighted him, the irregularity and minutely curving edge of some thin pliant material.

Lucas Van Leyden, Dürer's contemporary, has a great reputation as an engraver, which is due partly to his intelligence and partly to his skilful management of the burin, but he was not nearly so good a draughtsman as Dürer, nor so strong in vivid representation. There have been so many artists in the world who were clever with their hands without any perceptible traces of intellect, that one has a special respect for Lucas Van Leyden on this account. In the 'Temptation' his Christ is intelligent (this is rare in sacred art), and Satan is not a mere beast, but a being from whom the most insinuating suggestions might come appropriately. He is not Goethe's Mephistopheles, the time was not yet ripe for that conception, but he is crafty and old, far more dangerous than the vulgar notion of an evil spirit. If you look to the execution, you will see in the plainest manner all the process of early engraving with the burin. You will see what a very simple, honest process it was, and how it compelled everything in nature to conform to its own convenience. Local colour is altogether omitted ; shade is allowed, but far more for

projection and relief than for anything in the nature of real chiaroscuro. As for texture and picturesque detail, the rock has just the same texture as the drapery, and so has the slope of land. The means used consist simply of the burin line in gentle curves, alike over rock, drapery, flesh, ending with dots to pass away more easily into the lights, which are white everywhere. Cross-hatching is admitted, but the reader will please to remember that this is not a difficulty in metal engraving as it is in woodcut. When the lines are hollowed with the burin instead of being left, they are as easily crossed as not. The distant landscape is almost in pure outline, and so little did the artist try for delicate tones that the hills behind the milking scene are in outline and nothing else.

Here let us pause a little before going forward towards the modern schools of engraving. If the reader takes any serious interest in these matters, and has any real desire to think justly about his own contemporaries, he ought to take into consideration the very different conditions under which the old engravers did their work. Nobody either amongst their neighbours or their successors ever expected the old engravers to give good drawing, truthful texture, and accurate effects of chiaroscuro all in the same plate, yet these qualities are expected every day, in combination, from the moderns. Chiaroscuro the old engravers never gave, because they worked in pure ignorance of its laws. Texture they gave when it suited them, and when it did not suit them they either gave it partially or else omitted it altogether. They were strongest in drawing; in their conception engraving was a delicate sort of linear drawing; but even here they are treated with great indulgence. Bad proportions and erroneous lines are by no means rare in famous old engravings, but they are gently passed over by modern critics in order not to offend collectors.* Lastly, the old engravers were strong

* The school of Fontainebleau contains many examples of very delicate engraving united to very bad drawing. The lines are well applied with the burin, and yet in the same plate the limbs will often be entirely

in the use of the burin, but even this is too much to say of the primitive Italians ; and the northern artists, who gave their time almost exclusively to the acquisition of this manual skill, might fairly be expected to attain mastery. If our contemporaries were allowed to do work of the same abstract kind, their skill in line would be more visibly exhibited.

Pure line-engraving came to its perfection in the very best plates of Marc Antonio, but few engravers have been more unequal or more unpromising in their earlier work. Bartsch praises one print which he catalogues under the number 199, and calls 'a beautiful engraving executed with the greatest pains.' The subject is a female figure partially draped and reclining on a bed. One arm is raised, and it is shaded with slanting lines with dots after them, a most primitive piece of coarse engraving, expressing no form of any kind. The progress from such work as that to the arms of the Dido and the Lucretia seems beyond the wildest hopes of youth. Some plates by Marc Antonio are quite remarkable for the extreme badness of their backgrounds ; there is the piece of the Five Saints, for example (Bartsch, 113), which displays one of the very worst skies ever attempted — the clouds like sheep's brains, and the sky in short, regular horizontal lines, badly joined together and deeper at the joinings. After German engraving, one is struck by the total absence of picturesque taste and observation in Marc Antonio's coarser backgrounds, as, for example, in that to the Virgin with the long thigh (Bartsch, 57). The material is broken enough — you have a broken staircase and a broken column, but they are not in the least picturesque, and there are clouds above the buildings with the consistency of puddings. In the Virgin with the Staircase (Bartsch, 45) there occurs a curious test of elementary knowledge in a column and a pilaster. The column is so situated that in nature it would receive a strong reflection, but where the reflection ought to be the out of proportion, as when a delicate little head is joined to the same body with an enormous arm.

engraver blackens it ; as for the pilaster, the engraver shows it in retiring perspective, yet shades it as if it were seen in front. In the Virgin with the Cradle, the shading about the chimney contradicts the perspective also, and yet this is one of the artist's more successful works. On the other hand, there are very fine things in some of his plates, such as the delicately engraved figure of the naked soldier who has just drawn his sword in the 'Massacre of the Innocents,' and other engravings are fine throughout, like that astonishing portrait of Aretino.

These being amongst the high classics of the art of line-engraving it may be well to consider the principles on which they are done, for if we understand these we shall understand the art as it was practised in the days of Raphael. In the first place everything is subordinated to the convenience of the man who holds the burin. He does what can be done naturally with the instrument, he neglects everything which would embarrass him. It would not be quite accurate to say that local colour and effect are entirely omitted, but they are very nearly omitted, the little that remains of them being used simply to relieve the forms. There is no tone. The distances are represented very nearly in pure outline, so that the darks in the figures may not be in any degree overpowered. The distance in the 'Dido' is a good example of this, and yet above this distance, in the right-hand corner, there is a bit of very dark sky merely to furnish that corner of the plate, without reference to nature. The boldly artificial character of classical engraving may be understood from the flames in the 'Dido,' which are exactly adapted to the work of the burin, but so remote from nature that they look like pieces of cardboard cut out in tongue-like shapes and set up one against another. Again, observe that these large flames cast no light, that the ground is very dark near them, and the draperies as dark as possible on that side. On examining those draperies themselves the reader will be struck by their very vigorous relief, but this vigour is possible only in a school of engraving which makes natural truth entirely

subordinate to artistic purposes. Is the drapery white or black? It cannot be grey because the lights are all white; for the same reason it cannot be black, as black does not become white in light; and, finally, it cannot be white, because white is not black in shade, as this is. So far as shading is concerned, the drapery is simply an impossibility, but this false shading gives startling relief to its beautiful folds. In the 'Lucretia' the relief is got in another way. The drapery itself is more moderately shaded, but on its light side it is relieved against a black wall which goes up in the form of an arch over Lucretia's head. That wall and arch could not be black in nature, but it was very desirable to make them so in the engraving, which would have been far less brilliant if they had been only grey. The truth is that to get relief the classical engravers would at any time go from white to black even in the same limb, and they cared nothing about any natural laws except those of form. Their art stands on its own basis, and of all the graphic arts it is the most independent of nature.

It is so difficult to speak with precisely accurate justice of artists whose merits and defects are inextricably mingled together, that I hardly know how to convey to the reader an opinion about the Little Masters worth his attention without going more into detail than the scope of this chapter permits. They were generally at the same time very skilful engravers, manually, and poor draughtsmen, and yet there are lucky works of theirs, especially portraits, in which the drawing seems as good as it possibly could be in that style of art. The vices of drawing to be found in the Little Masters are either glaring defects of proportion, as in Henry Aldegrever, or a want of observation of individual form, as in Hans Sebald Beham, who generally gave all his men the same thick legs and heavy necks, without distinguishing them much except by their faces, besides which the legs themselves are not really studied, but engraved in a set manner once learned and not afterwards forgotten. Still, there is a great deal of interesting matter in the small

plates of the Little Masters, and if the reader desires an introduction to them he has only to get Mr. W. B. Scott's able book on the subject. They kept up to a much better general level of workmanship than many more famous artists. Their burin work is clear and sound, their compositions full, curious, and attractive. 'A selection,' says Mr. Scott, 'from the works of Schongauer and the few others who claim to be what the Italians call Quattrocentisti, and those that followed impetuously in their steps, Dürer and the Little Masters, a noble band of free-minded men and accomplished artists, who pass out of sight one by one about 1550, is a source of endless enjoyment. Smallness itself has the charm of refinement, and when associated with largeness of art gives us the noblest pleasure ; their works have the freshness of the early days of modern civilisation ; they are like boyhood in life, and possess the daringness of boyhood. Such a collection, I would venture to say, containing within itself the choicest flower and fruit of German art, affords to the intelligent the greatest fund of enjoyment of any possession within the region of taste.' I quote this to show the strong interest which the Little Masters have sometimes inspired. My own feeling about them is less enthusiastic, but I believe that the study of them might have a good influence on modern book illustration, because of that association of smallness of size 'with largeness of art' which alone can make book illustrations at the same time convenient to the reader and seriously interesting to a lover of the fine arts. As an example, I may mention Hans Sebald Beham's series of the Prodigal Son. Each engraving measures about $3\frac{1}{4}$ in. by $2\frac{1}{4}$ in., the smallest considerably less, and yet in this confined space Beham found means of putting compositions of five or six figures engraved in a large manner. In the little subject, $3\frac{1}{4}$ in. by $1\frac{1}{4}$ in., illustrating the text *Dissipavit substantiam suam vivendo luxuriose*, the women are in stately costumes with folds and falling of drapery quite carefully studied, the background is beautifully filled with trees and plants, and the table is set ready. In the *Pater da Mihi*

and the *Filius meus mortuus erat*, room is found in the background for a stately representation of the paternal house.* Trees and landscape distances are finely introduced ; of course, these are not modern naturalist landscapes, but they compose well with the figures. We have spoken of painted tapestry in this volume ; well, if these tiny prints of the Prodigal Son were copied on large tapestries in their lines, and then coloured in a suitably conventional manner, they would bear the enlargement and look at the same time sufficiently furnished and dignified enough for such an employment. There are few small compositions made for modern book illustration of which anything like this could be said.

Nobody can properly understand the growth of modern engraving without taking into consideration the influence exercised on the development of the art by the engravers who worked under the direction of Rubens. It is a class of art intermediary between Lucas Van Leyden and our own contemporaries ; it is a kind of engraving in which old principles are abandoned and modern principles not yet wholly adopted. The old principles of keeping the lines brilliantly clear, and of looking to pure white paper for a contrast to add to the value of shades, were abandoned by the interpreters of Rubens. They hid their lines under laborious cross-hatching, and only reserved white for their lights, not for spaces of calm and quiet. On the other hand, they had not yet adopted the modern principle of translating a picture with all its lights and darks. Rubens did not encourage them to do this. His way of dealing with his engravers was founded upon a conception of engraving quite different from that of a modern Englishman. When a

* As an example of the strange uncertainty in drawing which characterises these masters, I may say that, although the paternal house is drawn fairly well in most respects, there is a most troublesome mistake in the perspective of the stairs in the *Filius meus*, one of those mistakes which torture anyone who knows : the stairs are drawn to one horizon, and the battlements, windows, &c., to another.

modern Englishman gives a commission to an engraver he expects him to copy the picture as accurately as possible in its lights and darks, and in its texture also. Rubens expected nothing of the kind. He looked upon engraving as an art entirely distinct from painting, and was quite willing to abandon many of the most interesting qualities of his own art when men like Vorsterman, Pontius, Boetius à Bolswert, and Schelte à Bolswert, translated it into theirs. He even helped them by making drawings bereft of his pictorial richness and simplified for their use, sometimes even showing them the best direction for their lines. The engravers did not imitate the quality of the master's painting at all, nor did they render its local colour except imperfectly or occasionally. Their system translated things mostly into grey, with white lights. They made great progress in modelling, and by making their lines go in the directions most expressive of form they came to interpret the naked figure with a roundness, and drapery with a fullness of thick folds, greatly surpassing previous efforts, and yet they did not give texture in the modern sense. In one plate before me, by Schelte à Bolswert, a stone seat and a piece of drapery on it are shaded exactly in the same manner, and with the same quality of cross-hatching ; in a landscape by the same engraver the upper part of the sky and the lowest part of the foreground are precisely of the same texture. It is this want of sufficient variety in the representation of different qualities which makes engraving of that class less interesting to us than its considerable merits would seem to demand. I confess honestly that the engravings of the Rubens school have very little attraction for me, beyond a purely historical interest. They are very important in the history of art, but the engravers' work does not stand firmly on its own basis, like that of Albert Dürer or Lucas Van Leyden, nor does it give the touch and style of Rubens. I would rather have an old piece of original work in engraving, done quite without reference to painting, or else a modern engraving coming nearer to the qualities of a picture. I like

the classic economy of labour in such a piece as Marc Antonio's 'Dido,' in which there is no weariness and every line tells on the white paper; but the engravers of Rubens throw in lines by thousands, carefully and laboriously engraved, yet not giving true tone after all, or anything like it, whilst the strong lines themselves are often destructive of interesting character and detail.

As an example of the best Dutch engraving in the seventeenth century, the reader can have nothing better than the portrait of Gellius de Bouma, by Cornelius Visscher. Our reproduction gives only the head and beard, quite enough to show the force of the artist. There is extraordinary vivacity in the engraving of the face — indeed, it is as lively as an etching, and beautifully modelled besides. I never can reconcile myself to those formal engravers' backgrounds which mean nothing except a certain tone of grey, and yet are not sufficiently neutral in treatment to escape attention. The simple old way of treating a background that meant nothing was to make a tone by straight horizontal lines, as Marc Antonio did behind Aretino, and Bartholomew Beham behind the Emperor Charles V. If a darker place was wanted for a shadow, it was got by crossing the lines once, and that sufficed. Now see the effect of elaboration coming in! On your left the lines are all crossed at right angles, and to your right they are not only crossed in this way, but traversed by diagonal lines again. Nor is this all. Not satisfied with this, the engraver has gone over the whole background with innumerable little separate burin touches about a twentieth of an inch long, the total result being greatly inferior to the old-fashioned simple line. The shading of the dress introduces a modern kind of skill in the use of thick lines carefully modulated in direction with a narrow white space between them. Now, those lines were certainly done in the modern way by what is called re-entering, that is, by putting the burin into the same line over and over again, and there are places where an extra thickening of the line serves as shade. Again, there are

places where shade is managed by the careful insertion of a thin line between two thick ones, another quite modern device, which the early engravers never thought of. Here, then, we may say that *modern engraving has begun*. One good old custom, however, is still preserved. The engraving is not done from another man's work ; it is Visscher's own.

Visscher's great French contemporary, Robert Nanteuil, also drew from nature, and often engraved his own drawings. M. Duplessis even goes so far as to say that the greater part of Nanteuil's works were engraved from his own designs, some of which have been preserved, and are at the same time very careful in manner and full of vivacity and character. He began life as a pastel-painter, and only thought of engraving, for the purpose of reproducing his own works, when he had made himself a position as an artist. Afterwards he became immensely successful as an engraver, which had the bad effect of inducing him to employ assistants ; but M. Delaborde tells us that there is not a single plate bearing his name in which the head is not his own work. The work of the assistants would be in the backgrounds and accessories. The portrait of the Marquis of Castelnau shows the kind of background which had come to be generally accepted in the seventeenth century, and which I cannot help considering a misfortune to the art. I greatly prefer the simple horizontal line employed for the portrait of Peter de Maridat.* It may be said that backgrounds are not of much importance, but unfortunately in the fine arts everything is of importance. A mechanical background gives an inartistic look to a whole plate, as we see in the spoiling of Vandijke's etchings by the engravers. They did not efface his own work, yet they spoiled it. In the 'Marquis de Castelnau' the face is admirably engraved ; it is at the same time very sober in manner and very animated in expression. The armour is fine, too, very simple in workmanship, and very powerful. I

* Reproduced in the 'History of Engraving' by Duplessis.

cannot say so much for the wig, which is poor in texture and flat, almost as if it were a part of the background. Robert Nanteuil engraved more than thirty portraits the size of life, and nearly two hundred smaller ones. The reader may study his 'Marquis de Pomponne' as an example of the large portraits. The face is most carefully modelled throughout, and of fine quality, the dress coarsely engraved for contrast, except the lace. In the small portrait of 'La Mothe le Vayer,' Nanteuil reached an ideal perfection of intelligent delicacy in the face, certainly one of the most completely satisfactory pieces of work ever executed.

Pierre Drevet, born in the latter half of the seventeenth century, leads on into the eighteenth. In the history of portrait engraving he succeeds to Nanteuil; and in his turn was succeeded by his son, another Pierre, who left a wonderful portrait of Bossuet from Rigaud's picture. It is all pure burin work, yet so supple in handling and so various in texture that we do not in the least feel the indocile nature of the instrument, and there is hardly any of that hard and strong work-without-meaning which engravers often employ to make other parts look interesting. The face is as delicate and lively as possible, fully keeping its place in spite of the dangerous splendour and perfection of the accessories; which are carried out to the minutest detail with the most extreme clearness, even down to the marvellous lace with its pale light and shade, the litter of books on the floor and table, the inkstand, &c., &c. The only bad bit of work is in the cloud in the lower glimpse of sky, with its unfortunate crossings of line producing a false effect of their own. Pierre Imbert Drevet engraved this masterpiece at the age of twenty-six, and it is said that at thirteen he had already learned his profession. The Bossuet fully expresses that ideal of portrait engraving which prevailed in the eighteenth century. It is beyond all comparison more accomplished, in the technical sense, than the work of the early masters, even including Dürer; for though it abounds in detail, the details are all executed with reference

to each other, whilst in Dürer they are executed independently. A cousin of this engraver, Claude Drevet, was his pupil and successor, and inherited some of his qualities. One of his most famous plates, like his cousin's Bossuet, was from a picture by Rigaud, and the subject was a prelate, Mgr. de Vintimille, Archbishop of Paris. Roman Catholic prelates were delightful models for artists like Rigaud and the Drevets because they wore such elaborate costumes. To show the amount of highly-skilled labour which engravers of that class were prepared to bestow on a piece of costume, I have had the lace on Archbishop de Vintimille's knee and sleeve reproduced on its own scale. In these days photography has accustomed us so much to detail that we may easily under-estimate such work as this; but let us remember that it was all fairly drawn by a man's hand, and with the most difficult of all instruments. In spite of its extreme elaboration it only holds its right place in the picture. Here the study of quality and texture has come to full maturity; this is not an abstraction substituted for lace, it is a true representation of the qualities belonging to the material, of the manner in which it takes its folds, of its combined stiffness and pliability, of its endless detail of design thrown into unforeseen combinations by perspective.

If this were a history of engraving, it would be necessary to give an accurate account of the best work done in Great Britain in the age of Strange and Woollett. Strange learned his art in France, taking up the tradition of French engraving at the point which it had then attained, and making those clear distinctions between different materials which had then come into vogue. I am not able to like the regular curves with a series of dots between them which he adopted for flesh, though at a little distance the unpleasant effect disappears. His *Charles I. with the Marquis of Hamilton and a Page*, after Vandyke, is certainly one of the finest engravings of the eighteenth century; and his *Children of Charles I.* may be taken as a good example of the extremely able way in which he varied his work according

to the occasion. It would require a special investigation to ascertain exactly how much the best landscape-engraving of the nineteenth century owes to Woollett. Perhaps it may owe much to him, perhaps if he had never worked from Claude and Wilson we should not have had the wonderful modern engravings after Turner. He took special pains to separate distances by distinctions of tone, and this has been carried much farther since his time ; but the only landscape-engraving with the burin which gives me any real satisfaction belongs to our own century. The case is quite different with portrait ; in that department of art the eighteenth century did not make progress towards excellence, as in landscape, but splendidly attained it.

Claude was a simple artist to engrave in comparison with the more advanced landscape-painters of the nineteenth century, and so was Wilson. They both arranged their pictures on the principle of well-separated distances, a principle much more convenient for the engraver of tones than the modern one of subtle passages from light to dark and dark to light occurring anywhere. The principle of separation naturally precedes the other both in painting and engraving, and I have no doubt that landscape-engraving in the seventeenth and eighteenth centuries was going forward by a right and natural progress towards its final development in the nineteenth, but the art in its early stages is wanting in certain qualities which, to any one who appreciates modern landscape-painting, seem essential.

One of the characteristics of the nineteenth century has been the development of book-illustration, a department of engraving for which the way had been prepared long before by the practice of the Little Masters and by the small works of the great engravers ; yet it was reserved for our own century to pursue art in little to its ultimate results. Jean Michel Moreau, who was born in Paris in 1741, and died there in 1814, had so much vivacity and fecundity of invention that he invented faster than

he could engrave, and employed many other artists ;* but when he engraved his designs with his own hands he did so with very high finish, I mean that he engraved fine lines drawn with great skill very near together, and representing both substances and tones with a distinctness unknown to the early masters. The final development of this tendency to finish for its own sake was reached by Paolo Mercurj, a native of Rome, who went to Paris in 1830 and stayed there about sixteen years. The perfection of manual workmanship attained by Mercurj in his most laboured work was one of those extreme limits which are reached in the technical qualities of the fine arts by men of special organization, who happen to be born just when an art is tending to a kind of perfection which they alone are naturally qualified to reach. To prevent a mistake let me say frankly that the extraordinary accomplishment of Mercurj is to me much more a subject of historical curiosity than of aesthetic pleasure ; but there the work is—an unequalled marvel in its own kind, in which every detail is elaborated with inconceivable accuracy, whilst tone and texture are as carefully observed as detail. The photogravure from his *Sainte Amélie* looks exactly like a photographic reduction from a large engraving ; but it is not reduced at all, every one of the lines in it was actually wrought by Mercurj with his burin on that scale, and in still greater perfection. Such work is quite beyond ordinary human power. We might as well try to make the threads of the gossamer spider, and stretch them by millions on the dewy autumn fields, as to hollow the tiny, the almost invisible trenches in the copper whereof Mercurj composed his shades.

Contemporary line engraving, of a more robust character, may be understood from the 'St. Helena' of Paul Veronese, engraved by Mr. Lumb Stocks. The technical history of such a plate is as follows :—The engraver begins by making a careful

* This lively productiveness may have been inherited from Moreau by his grandson, Horace Vernet, though applied by Vernet to subjects of quite a different character.

reduction of the picture in lead-pencil outline on paper, and this is transferred by the pressure of a printer's rolling-press to an etching-ground already laid upon the steel plate. The lead of the outline, when it adheres to the black etching-ground, shows itself as a silvery grey, and the engraver carefully corrects it with the etching-needle ; besides which he fills in with lines and dots such parts of the flesh tints as may seem to come within the possibilities of work at that early stage. The next business is to etch the principal forms of the hair, and of any drapery which is to have rather a rough or picturesque character, and the engraver introduces a few guiding lines in the other drapery in the shadows, so as to give some notion of the general arrangement of shade. These lines being sufficiently bitten (not to any great depth), the engraver begins to work lightly with the burin, laying in the flowing lines of drapery by following the guidance of the main lines already etched ; and afterwards, these same burin lines are gone into repeatedly with the burin to get down to the requisite depth. They are also deepened by the process of rebiting, as in pure etching ; but when an engraver rebites he is generally careful to retouch afterwards with the burin, unless he wants a rugged or picturesque effect. In the 'St. Helena' the hand-ruler was employed in the sky and architecture, and the lines drawn with the etching-point, but not crossed until the first lines had been bitten in, after which the plate was cleaned and regrounded, when the cross lines were added. The progress of a plate in the engraver's hands is extremely deliberate, and aided by frequent proof-taking to enable him to judge exactly of its condition. The gradual changes in it are a constant darkening, except when the burnisher is used, which is not often. Each proof is a fresh starting-point, until the last, which is the end of the journey.

I hope the reader fully understands that this complete art of line-engraving cannot possibly, in the nature of things, have that brilliant appearance which strikes us in the younger art of Lucas

Van Leyden or Marc Antonio. That was obtained by the opposition of white spaces with strong blacks, or decided darks, truth of tone being sacrificed in both, either from intention or inability. The modern engraver on steel shades almost as completely as a painter, and the consequence is that he has seldom the resource of pure whites or very intense blacks. In a painting, the comparative dulness of the intermediate tones is so much enlivened by hue that we hardly perceive it ; in an engraving, they have to be rendered by different shades of grey, and the only way to enliven these is by a learned, but not obtrusive, variety in the use of the burin. The unrestrained and excessive desire for this variety has led to some of the very worst evils in engraving, evils which have made some painters condemn the art altogether as remote from nature, and without any genuine feeling. The great success of etching, in our time, has been due, in part, to a weariness caused by the artifices of the line-engravers.

The most decided of all the varieties to be obtained with the burin is the difference between lines and dots. On analysing early work the reader will often find that where the line comes near the light it breaks away in dots, and there is a good deal of dotting in modern line-engraving also, except when there is a very decided resolution to do without it. When the art of dotting is carried to perfection, and exclusively employed in some portion of the work, it is called stipple. It is convenient for the representation of flesh, which it imitates more closely in quality than linear shading can, but on condition of being fine in texture, as coarse stipple always looks like an eruption. All the kinds of engraving depend for the appearance of perfection which they possess on the weakness of human vision ; but stipple even more than line, as coarse dots are certainly more intolerable than coarse lines. The beautiful little portraits of distinguished men, done by C. H. Jeens, seem nature itself at a distance of eighteen inches, the texture is so like flesh, but if you examine them too closely the charm is broken ; and if you take a strong

magnifier, you perceive that the dots are much larger and less numerous than you thought, and that they do not correspond to anything on a healthy human face. One of the most perfect portraits Jeens ever did was that of Sir George Airy, all in pale tones, wonderfully true, with the whitening hair and whisker perfectly relieved, just as they would be in a painting ; and the eyes bright in a quiet shade. The modelling of a human face can hardly go beyond that on so small a scale of work ; every plane of it is thoroughly studied and expressed. Take the magnifier, and you wonder how such a system of regulated spots can produce such well-sustained tones, and such sound modelling. The portrait of Sir William Thomson is more powerful, having a strong gradation from the upper part of the forehead downwards, with darker hair and beard. Here the spots of the stipple are visible to the naked eye, yet so beautifully are they ordered that they do not offend — under the magnifier, the curving ranks of them look like tattooing. The thing done is one thing, the effect of it upon the eye is another. Who would suppose that hair could ever be properly represented by a series of dots ? Sir Charles Lyell's white hair and whiskers are all translated by dots, which under the magnifier look like strings of beads. Seen as the engraver intended, the dots, themselves invisible, produce an effect of softness on the eye, being exactly in dark what an unresolved nebula is in light. In the excellent likeness of Mr. Macmillan, the eminent publisher, all is in stipple, except the dress and the background, which Jeens usually engraved in line. He often carried line and stipple together in his treatment of hair, as in the portraits of Huxley, Thomson, and Agassiz.

Mr. Holl's method of engraving is as follows : He begins with etching the background in loose, broken line, and the draperies in stipple and line, all outlines and forms being marked in at this early stage of the process and slightly bitten. He then improves with the graver and re-bites, and after that for some time the plate passes through alternatives of added finish

in the lights and increased depth in the shades to accompany them. At first the lights are too bright, and as soon as they are lowered, by being worked upon, the shadows in their turn become too weak, relatively, and have to be deepened ; then the lights are worked upon again, and so on, till the whole plate gets down safely to the intended depth of tone.* Faces are done in stipple almost entirely in Mr. Holl's practice. The burin used for line-engraving is curved upwards towards the point like a curved gouge ; that used for stipple is curved downwards to the point like a scimitar. By using a magnifier you can see exactly how each spot has been cut out.

An achievement in engraving which belongs exclusively to the nineteenth century is that of truthful and delicate tone-engraving in landscape. Early German engraving gave an abstract of landscape *form* often curious, interesting, and, in its way, observant, especially in the placing of quaint cities amongst mountains or trees ; early Italian engraving translated such landscape as it recognised into pale outline, with a little cautious filling up in the distances and strong oppositions of unnatural light and dark in foregrounds ; engraving of the middle period — the age of Rubens — translated landscape coarsely by strong lines and lozenges ; engraving of the eighteenth century attempted the separation of a few simple tones ; but only in the nineteenth — only during the lifetime of the oldest people we know — has landscape ever been engraved with that delicate truth of tone which is necessary to its complete expression. You may, of course, sketch landscape nobly with pen and ink, as Titian did, or you may etch it with a good selection of tones, like the best etchers of the present day ; but although

* This gradual method of working down to the darks is very generally followed by engravers, but not universally. I am told that some, including Doo, have preferred the more hazardous system of finishing one part of the plate at once. Without presuming to criticise an artist about his method, when the result is good, I cannot help feeling convinced that the gradual approach to dark is the wisest method for line-engraving in metal.

such work is always right and valuable, if well done, it misses the tonic delicacy which the true landscape-painter delights in. This was given, at last, by the best English engravers after Turner. Their work reached the high-water mark of landscape-engraving, and it will never be surpassed in its own way. Nobody will ever translate the tones of water-colour better than they were translated by Goodall, Wallis, and Miller, in the vignettes to Rogers. However subtle the distinctions by which Turner separated the pale towers of his distant cities, or the shadowy masses of his mountains, or the vaporous heights of cloud, these men followed him, and in following him they achieved feats of execution entirely beyond the power of all those famous artists who are considered the classical masters of engraving. Goodall taught Robert Bandard, and Robert Bandard taught his brother Edward, to whom we owe the plate of 'Barnard Castle,' after Alfred Hunt, a work in which, without servile imitation, the best traditions of Turner and his engravers are maintained. To any one who understands the enormous difficulties of rendering tone by line, such a piece of work is a problem of great interest. How was it ever brought into being? By the familiar old processes, and with just those common tools that the worst of engravers has in his box. Simply an etching, in the first place (a kind of art that used to be despised under its true name, and admired when it was called 'engraving'), then most careful work with the burin bringing the shades very gradually down to their darkness, the lighter tints being aided by the burnisher and the steel dry-point. The machine-ruler was not employed either on this plate or in the most delicate works of the engravers after Turner; it has long been commonly employed in the cheaper kinds of landscape-engraving, especially for skies, but not in the very finest. There is, indeed, no ruling of any kind in this plate, every line being drawn by hand as freely as the faithful observance of tone permitted. The diamond has not been used either, only the common steel, and a good deal of what the reader sees, especially in the foreground,

is etching. Proofs are taken whilst an engraving of this kind is in progress, and submitted to the painter, who suggests improvements when the engraving is worth it, and heightens it by sparkle when it is not. 'I have to thank you,' says Mr. Hunt to me, 'for a great means of improvement in my work. No amount of pencil or sepia drawing can have the same power of forcing attention to subtleties of black and white and truths of form which a plate in prospect or in progress exercises over any artist who deserves to have an engraver's time spent over his design.' On the other hand, when an engraver has to interpret a delicate work, worth his serious attention, the long and patient labour is a delight to him, exactly like that of the scholar who absorbs himself for weeks or months in the study of an author whom he appreciates.*

In closing this chapter on Line-Engraving, in which I have been obliged by limited space to make many omissions, I must express a regret which is shared by all true lovers of the fine arts — the regret that our modern civilisation, with all its wealth, is not really favourable to the line-engraver. A picture excites interest when it is exhibited, and the print-seller wishes to profit by this interest before it has died away. A good line-engraving might take several years, cheaper methods require a few months. The art of the line-engraver is most difficult and most laborious, the money reward is moderate; the reward in fame and position is not to be compared with that of a successful painter. Under these circumstances, it is not surprising that the art should be in danger of extinction. There are still a few men in the world who can engrave, and before they leave it

* 'It is with peculiar pleasure,' says Mr. Brandard, 'that I have engraved the present drawing, which forms so striking a contrast to the usual black and white engravings of the present day, as to which the primary object is to get them up as quickly, and showily, and inexpensively as possible, giving the engraver little chance of expending over them the time and talent which characterised the plates done thirty or forty years ago, which were so full of refinement, and of delicate finish and beauty.'

we may do well to inquire if we cannot keep the art alive in worthy successors. I have only two suggestions to make, and these may seem vague and unpractical. The first is that people should take the trouble to study the qualities of the best engraving, so as to appreciate it when it reappears ; and the second is, that the engravers themselves should devote at least some portion of their time to the production of original work, as their greatest predecessors did. One great reason why modern engravers attract little attention is that, whatever may be their natural gifts, we know them only as interpreters of other men's ideas. There would be great technical advantages in original work. An engraver not responsible towards another artist might apply labour, or spare it, in his own way, and the simple omission, as in other graphic arts, would often be a positive, instead of a merely negative quality.

Comparison of Line-Engraving with Nature.—The art of engraving depends for its success upon a very exact adaptation to the sight of the spectator. Execution which seems wonderfully delicate and truthful to the naked eye appears unnatural when magnified, and when we examine the matter thoroughly we find that engraving is never, under any circumstances, the truth, but a very ingenious substitute, always dependent for its success upon the imperfection of our sight. Human hair, in stipple, is often represented by a series of dots, and skies and clouds in line-engraving are represented by sharp burin lines, which in themselves are absolutely unlike natural skies. Engravers are so well aware of this unnaturalness of the means used that they hardly attempt to conceal them and often show them very plainly in large plates, believing that the excellence of the workmanship, from the purely artistic point of view, is a compensation. Instead of drawing grass, for example, in the foreground of a large landscape, with anything approaching to that delicacy which belongs to natural herbage, engravers have often simply indicated the degree of shade by means of strong

lines thrown down like a great black net. It follows from this that small, highly-finished engravings, in which the lines are not easily seen, produce upon the mind a stronger impression of truthfulness than large plates with powerful burin work. When left to itself line-engraving has never been true in tone, it has only become so after imitating pictures. In its own natural condition line-engraving is an exceedingly simple art (though difficult in its simplicity), and since nature is as complicated as possible it is plain that such an art must be highly abstract, that it must reject all the qualities of nature which embarrass it. An engraving by Marc Antonio is as far from nature as a bronze bas-relief, an engraving by Dürer is a collection of objects seen as they are never seen in the natural world. Even the engravers of the school of Rubens worked as if they had never seen nature in their lives, nor their master's pictures either, but only his drawings. In modern times engraving has approached more nearly to the tone and texture of painting, and so resembles natural appearances. Truth of tone is a most valuable conquest in landscape, because the feeling and expression of a landscape often depend upon it; but in figures it is of much less importance, and may often be dispensed with if the forms are well drawn. It is not an evil when organic form is shown in engraving with clearer definition than in nature, because we all know that engraving is a linear art, and we like to see the line when it is beautiful.

CHAPTER XXVII.

AQUATINT AND MEZZOTINT.

A QUATINT is a kind of etching in which spaces are bitten instead of lines, and the object of it is to imitate a water monochrome. The nearer it approaches in quality to a drawing in sepia or Indian ink, the better it is.

The principle on which aquatint is founded may be understood by a simple experiment: If you take any acid that will bite copper quietly, such as perchloride of iron, and apply a little of it with a brush to a surface of polished copper, and remove it with blotting-paper after it has remained on the copper a short time, you will find that on taking a proof of the plate your blot will give a tint exactly like a pale flat wash of Indian ink. If you continue the experiment, and make a series of ten different blots, each bitten longer than the preceding, you will find on printing the plate that you have ten different tones, passing from light grey down to a deep shade which is very nearly black. Here, then, it would seem at first sight that an artist had at his disposal a very perfect method for imitating water-colour drawings; but there are two defects in the process, as I have described it so far: the first is, that the tints are all flat, and we cannot deal with nature without gradation; the second is, that the darker tones are very dense and lack transparence, whilst in long printing they might wear so as to produce a false appearance by showing whiter in the middle than towards the edges. The process in this state then might serve as an auxiliary to

work already well advanced in etching, but it would not be a good process by itself. Gradation might be managed to some extent by graduated bitings, but these would come in bands instead of in true insensible gradation. There remains, however, the resource of the scraper and burnisher by which gradations may be completed.

The next difficulty is about the darks. All the very pale shades of an aquatint may be bitten on the bare copper, but as we approach the darks the hollowed copper requires a stronger grain than its own molecules supply. The way to get this grain is to protect numerous and minute spots on the surface of the plate, so that they may always retain their original level, only the spaces between them being hollowed. This may be done by the help of anything which will deposit separate specks of matter that will resist acid. The acid bites in the intervals between the specks, and they themselves are represented in the printing by little specks of white. Several ways of getting a grain have been used by aquatinters. Some men have employed salt made to fall equally on the plate heated and covered with etching-ground. When the plate cooled the salt could be washed out with water, and left holes in the etching-ground through which acid attacked the copper. Others have employed resin in powder, which exactly reverses the salt process, for the salt made holes to admit acid, and the resin made specks to resist it. The plate, with no covering, was placed at some distance below a piece of muslin stretched on a frame, and through this, as a sieve, the powdered resin fell on the plate, which was then gently heated to fix it. On biting, the specks of resin left the copper in relief, and so produced little white spots in the proof. Another plan was to put the plate in a large box, the air in which was laden with resin in the form of dust. The box being left quiet the dust subsided equally on the plate, as common dust does on a table.

There is yet another way of using resin to procure granula-

tion. It may be dissolved in spirits of wine and poured over the plate and off it, as collodion is on a photographer's glass. On drying, the coat of resin so deposited contracts, and innumerable microscopic fissures are produced. The acid gets into these and bites, respecting the little islands of resin which remain between the channels. These islands vary in size according to the strength of the solution; the weakest solution gives the smallest channels and islands, so that the strongest solution is used for the coarsest grain. This is the process now successfully followed by M. Brunet-Debaines.

Aquatint is seldom practised by itself, it is rather an auxiliary to line etching. It was much employed by Goya, the famous Spanish artist, but very coarsely and only for broad flat oppositions of light and dark in his etchings. It was very frequently used in the early part of the present century, and was a favourite method for reproducing the drawings of old masters. It was at first adopted in combination with etching for reproducing the drawings of Turner's 'Liber Studiorum.' On this subject Mr. Rawlinson says: —

'The engraving of the "Liber Studiorum" was from the first a matter of the utmost care with Turner. Attracted, it is said, by the fine series of landscape plates which Paul Sandby had engraved in aquatint from his own drawings some twenty or thirty years earlier, and also probably by more recent work by Daniell, Lewis, and others, in all of which could be readily seen the greater freedom of the aquatint process as compared with etching or line-engraving, more especially in rendering all those effects of light, cloud, and atmosphere so dear to him, he first decided to employ that medium, joined (as mezzotint was later) with etching, for reproducing his designs for Liber. Accordingly, he agreed with F. C. Lewis, the best aquatint engraver of the day — who at that very time was at work on facsimiles of Claude's drawings, to proceed with his first plate, "The Bridge and Goats," afterwards issued as No. 43.'

A dispute about prices led Turner to break with Lewis after this drawing had been engraved, and directed the

painter's attention to mezzotint, which he adopted, finding several excellent mezzotint engravers prepared to work for him by a sound training in the great English school of mezzotint portrait engraving.

It is unnecessary to dwell longer upon aquatint, which has not held its ground well amongst the graphic arts. A few modern etchers have successfully used it as an auxiliary, the most skilful of these being Brunet-Debaines. One of his best aquatints is from Turner's 'Agrippina landing with the ashes of Germanicus,' in which there is very little linear etching, and the engraver has obtained a great variety of tone, with much of the liquid appearance which belongs to a good transparent water monochrome. Aquatints, executed by men of less refined taste, are often so mismanaged, that the granulation, which ought scarcely to be perceived, except when it is a help to texture, becomes obtrusive.

Aquatint has one great practical quality ; it resists printing well. Unfortunately the same cannot be said for its richer rival.

Mezzotint is a kind of dry point, produced at first in little raised burs on the copper, not linear, but in points. The instrument which produces them is a sort of chisel, two and a half inches broad, sharpened to the segment of a circle, and with its surface engraved in many fine ridges, producing points at the edge. This *berceau*, or rocker, is rocked from side to side. In mine there are 110 points, and as to prepare a plate it has to go about 80 times over the copper in various directions, I find that when a plate, measuring six inches by five, has been perfectly well prepared, there must be two millions six hundred and forty thousand little points upon it.

In this state of preparation, a mezzotinted plate prints a rich, soft black, even more lightless than the flat black of woodcut. The engraver then proceeds from dark to light, but by tones, not lines, and his method is as comprehensive

as possible. For example, suppose that the tones are represented by the letters of the alphabet, beginning with perfect black at A, and ending with white at Z, it is plain that he may begin by reducing everything, except A, to the shade of B. Then he has to reflect, and be careful to preserve both A and B when they are the right tones in the right places, and reduce the rest to C. He will deal with C in the same manner, and so on till he gets to the high lights, Z, which are put in last. In short, he advances towards the light by a steady progression ; but has to be strictly conservative of shade whilst he is doing it. The rule is to keep more strength of shade than is necessary for the ultimate effect, and to lighten the whole plate together very cautiously at the last. The instruments used are different kinds of scrapers, with which the bur of the rocker is removed. Unfortunately, the artist cannot take many proofs because they would wear his plate too much, but he can take a few to guide him (and a trained eye can see how the plate is going forward) on the copper.

The qualities of a good mezzotint are great perfection of tone, with delightful richness and softness, by which many textures can be rendered. The one misfortune about it is that it will not bear much printing. The ink is more caught on the surface by the bur than retained in the hollows, and when the bur has been removed by the friction of the printer's canvas and hand, there is little left. We have it on the formal testimony of Lahee, the printer, Charles Turner, and Thomas Lupton, the engraver of many *Liber Studiorum* plates, that these mezzotints only produced, on the average, between twenty and thirty proofs of a fine class. C. Turner affirmed distinctly that all his twenty-five plates lost their power after they had yielded thirty impressions. This, of course, refers to mezzotinting on copper ; on steel it yields much larger editions.

The nature of the art inclines men to aim at breadth of

tone rather than minuteness of detail ; so that a picture by Reynolds or Gainsborough is more adapted for mezzotinting than one by John Lewis or Holman Hunt ; and yet it is possible to get detail in mezzotint, as Richard Earlom conclusively proved in his marvellous 'Vase of Flowers,' after Van Huysum, and in his not less marvellous 'Flowers and Fruits,' after the same painter, two engravings which are the *ne plus ultra* of mezzotint, so far as minute finish is concerned. In both plates we have extreme delicacy of tone, perfect sharpness and accuracy in the definition of small forms, with such lucid finish, that even the dewdrops on the leaves have all their gradations, their reflections, and their transparencies, whilst they cast the sort of shadows which such bright things may cast. To any one who knows how difficult it is to model with a very limited range of tones, it is a rare pleasure to see the tender middle tint of the vase, with the complete modelling of the child-forms, and the pale shades of the white roses that look as if one could take them. Earlom played with every conceivable difficulty of intricacy, and of dark and light things passing before delicately shaded masses. He would engrave a fruit with a fly upon it, and the fly's wings had just the proper degree of transparency, its body the dark armour.

That was what mezzotint could do in detail ; but its highest work has been in the translation of portraits by Reynolds, Gainsborough, and Romney. The following paragraph, from Mr. Wedmore's *Studies in English Art*, gives, in conveniently brief compass, some account of the highly cultivated mezzotint engravers of the last century, men who attracted no special attention in their own day, when they supplied a commercial demand, but who are now more justly appreciated : —

'Of the men who practised mezzotint engraving, many were themselves painters. Hodges, the engraver of the "Contemplative Youth," and of "Lady Dashwood," was a portraitist of some distinction. Dr. Hamilton tells us that he spent many years in Holland, and that he is there considered as of the Dutch school. Richard

Houston was a miniature-painter. S. W. Reynolds, who produced some of the smaller plates, began as a landscape-painter. Raphael Smith was, in portraiture, himself an accepted artist. But generally the greater masters were engravers only. The entire company numbers one hundred and three, and the greatest among these are McArdell—an Irishman—James Watson, J. Raphael Smith, and Valentine Green. Raphael Smith—first, and I suppose most industrious of them all—himself executed more than forty plates after Sir Joshua: men, women, children: an archbishop, a dancer, a woman of the great world. He began his work young, and before he was thirty years old he had done much of that which is now most famous. Engraving altogether one hundred and fifty plates, he died, hardly an old man, at Doncaster, in 1812. His print of Mrs. Carnac would alone be enough to give him rank.'

The mezzotints in the 'Liber Studiorum' differ from those belonging to the Reynolds epoch in being sustained by powerful etched lines. This greatly facilitates the work of the engraver by sparing him the necessity for definition, and by leaving him to give his whole attention to values of light and dark.

Mezzotint may render the touch of a painter with great fidelity. The manual style of Constable was interpreted with close sympathy by David Lucas, a sympathy that won the hearty approval of Constable himself and of his friend Leslie, who loved his works more than their author loved them. If Constable had been interpreted by some formal line-engraver, we should have had nothing to compare with 'The Lock,' 'The Cornfield,' and 'Salisbury Cathedral from the Meadows,' in which the strong individuality of the painter is admirably preserved. 'Dear Lucas,' Constable wrote about the 'Salisbury,' 'the print is a noble and beautiful thing; entirely improved and entirely made perfect.' The only fault of Lucas was an excessive caution in the preservation of his bur, which made his work tend too much towards blackness.

Comparison of Aquatint and Mezzotint with Nature.—The tones of aquatint admit of great range, but as the process does not naturally produce gradation there is a tendency to flatness ; such aquatinting as Goya's, for example, is not like nature. Flat aquatint may be a good substitute for tinted paper in the imitation of drawings. It has been successfully employed by Amand Durand to imitate the tone of the paper on which Mr. Poynter's studies for *Plato* were executed.* The grain of aquatint is like the texture of some things in nature, but not of many, so that the process is not nearly so good for texture as it is for tone.

Mezzotint gives both tone and gradation in absolute perfection. It gives some textures admirably, and as it happens that these are of great importance, and often required, it seems highly successful. In portrait it gives the texture of flesh with delightful softness. Hair, in mezzotint, comes in masses, which avoid the wiry hardness of line. Stuffs, especially velvet, are rendered with great truth : the reader may remember the velvet of Rosa Bonheur's jacket, in the portrait by Cousins,† and its happy contrast with the texture of the calf's hair. In landscape, mezzotint very happily renders the softness of clouds and of reflections in water.

In dealing with strongly accented things, mezzotint lacks firmness and requires to be supported by stipple or line, unless the engraver has extraordinary skill and patience. A weak point in mezzotint is the difficulty in getting sharp and brilliant lights, but these are not essential to artistic beauty, and mezzotint looks more harmonious as it is, with quiet lights,

* If the reader will take a strong magnifier and examine the flat ground of these engravings, he will clearly see the exact nature of the granulation produced in aquatint.

† If there had been more space at my disposal, I would willingly have attempted to do better justice to the merits of this great engraver. In beauty of drawing and fine, clear quality of tone, he has had few equals ; but he is so justly appreciated by all who understand the fine arts, that any praise of him would be superfluous.

than if they could be as white and clear as in woodcut. On the whole, it may be truly said that mezzotint comes as near to nature as the finest charcoal drawing, and is more powerful than charcoal in one respect, as it gets down to a greater depth of tone.

CHAPTER XXVIII.

LITHOGRAPHY.

HERE are two principal divisions of lithography, one that imitates chalk drawings, another that imitates drawings in common ink. Both are founded on the same chemical principle, the repulsion between water and grease ; but the art would not have been possible without the discovery of a particular kind of calcareous stone which imbibes water and grease with equal readiness, having an impartial affinity for both.

Ink lithography may soon be disposed of. The draughtsman uses either the point of a camel-hair brush or a pen, which, for coarse work, may be a quill, for finer work a common steel pen, and for work that is finer still the miniature steel pens which are made on purpose for the work, and called ‘lithographic crow-quills.’ The drawing is made on the stone with a greasy ink, which is composed of tallow, white wax, shell-lac, and common soap, all in equal quantities. The mixture is blackened by an addition of lamp-black, but this is merely for the convenience of the artist, that he may see his work better. The tallow is the essential ingredient in the ink ; the soap is there merely to make the tallow work conveniently with water. The ingredients are mixed in a state of fusion, but it is unnecessary to trouble the reader with these details of the laboratory.

Lithographic ink is rubbed with water exactly like Indian ink, but it is not so pleasing to use. It always has a tendency to clog the pen, which requires very frequent cleaning, and,

as the ink is always drying near the point, it has to be continually cleared away on a piece of lead; but, with this difference, it permits the same habits of work as Indian ink, so that you may draw a sketch on the lithographic stone very much as you would on paper. It is found, however, in practice, as with all inks which have considerable body, that the point of a fine camel-hair brush is more convenient than the pen for linear drawing on stone. The brush is really the better instrument of the two, because it permits the artist to vary greatly the thickness of his lines, and also to use flat blacks, as in woodcut.

At the time when lithography was first discovered, the possibility of making ink drawings on stone, which might be printed to infinity by means of transfers,* was a great practical convenience, but this art was employed more for useful and practical purposes, such as maps and plans, than for works in fine art. At the present day pen lithography is entirely superseded, so far as the work of artists is concerned, by the different methods of photographic reproduction from pen drawings made on paper. The best of these hitherto invented, when fidelity to the character of a pen drawing is required, is the mechanical autotype process, but the processes of héliogravure turn pen drawings into engravings, which is sometimes considered an advantage;† there are also photographic processes, but much inferior, which repro-

* A proof taken in a certain way may be made to grease another stone in similar lines, so that the second stone will yield similar impressions. When artistic perfection is not required, transfers are just as good for practical purposes as direct lithographs. Drawings made with lithographic ink on paper specially prepared are also easily transferred to stone, and they do not require to be drawn in reverse, as all lithographs which are done on stone directly must be.

† Pen drawings are frequently made in the present day in imitation of the style of formal engravings, and then reproduced by héliogravure, and published as real engravings, because the public has rather a contempt for photographic processes. In the early days of lithography such pen drawings would have been done on stone.

duce pen drawings in imitation of facsimile woodcuts, in blocks which print with type.* Whatever were the merits of pen lithography, the reader ought clearly to understand that they were simply equivalent to those of common pen drawing, and could never be in any way comparable to etching, which has far greater powers by its various depths of biting, its use of the auxiliary dry point and burin, and its resources in artificial printing.

Lithographic ink drawings are made on smooth stones, but the stones for chalk drawings have a grain, and are prepared with very different qualities of surface. The grain catches the lithographic chalk exactly as paper catches common chalk, having what painters call a 'tooth' in canvases. The chalk for lithographic purposes is made of the same materials as the ink, but in different proportions, the tallow predominating over the soap, and the wax over the tallow. The result is a composition which may be used like common chalk, though it is much softer, and not nearly so convenient. By skilful hands drawings may be made with it which very closely resemble ordinary chalk drawings in quality, and, as they can be printed in ink of any colour, it is possible to imitate combinations of black and red chalk by drawing the black lines on one stone, the red on another, and printing both on the same paper. White is obtained in lithography either by protecting, on a separate stone, all parts intended to be white with gum-water and greasing the rest, or else by covering the whole surface with printing-ink, and then taking out the lights with a scraper, after which they may be etched to give them

* The harm done by bad photographic processes in the present day is incalculable. They are vitiating the taste of thousands who are unable to distinguish between what the photographic engraver sets before them and the original drawing which is out of their sight. Such processes are like an army of most active and most unfaithful translators, and the lamentable part of the matter is that they are employed by people who ought to know better. Pen lithography would be far preferable to these.

greater depth. In some of Harding's lithographs the imitations of white chalk print in rather high relief, which shows that the whites were hollowed in the stone. I need hardly observe that white ink is never used ; it is the surrounding buff or grey tint which is printed, and the white is simply that of the paper.

The possibility of printing several stones on the same paper has allowed lithographers to imitate drawings in three chalks with remarkable exactness, and in this they have often rendered very acceptable services to the fine arts. The same possibility, being limited only by the money which people will give for the work, tempted lithographers to use many stones and produce chromo-lithography. It seems almost cruel to condemn in a single sentence the labours of many industrious and enterprising people, but I am constrained to say that the proper provinces of chromo-lithography are heraldry, representations of stained glass, and copies of mediaeval illuminations. In these minor branches of art it has been very useful, and has been employed with advantage by antiquaries to give us more accurate ideas of mediaeval works than we could have derived from black and white art, but the employment of chromo-lithography to imitate the synthetic colour of painters is one of those pernicious mistakes by which well-meaning people do more harm than they imagine. The money spent upon a showy chromo-lithograph which coarsely misrepresents some great man's tender and thoughtful colouring might have purchased a good engraving or a good permanent photograph from an uncoloured drawing by the same artist. You will never meet with a cultivated painter who buys chromo-lithographs, the reason being that his eye is too well trained to endure them. Some of them, no doubt, are wonderful results of industry, but, in a certain sense, the better they are the worse they are, for when visibly hideous they would deter even an ignorant purchaser who had a little natural taste, whereas when they are almost pretty they allure him.

Black-chalk lithography is that which has been most practised by artists, and though the process was first patented by Senefelder in the beginning of this century it has a fair claim to rank amongst the arts of historical importance because many artists of distinction have employed it. In England it is chiefly associated with the name of Harding who, with that facility for adopting different processes which distinguished him, soon made himself a most expert master not only of chalk lithography but of lithotint also, a kind of drawing on stone which imitates washes of Indian ink. Harding delighted in lithography, which exactly suited his talent and enabled him to put what were really autographic drawings in the hands of his pupils more perfectly than by soft-ground etching. Some great French painters used lithography for the expression of their ideas, most of them heartily welcomed and appreciated it. At this distance of time, and with all the processes of photographic reproduction that we have at command, it requires a great effort on our part to realise the delight of our predecessors in a process which made excellent chalk drawings multipliable with hardly any perceptible loss of quality. Eugène Delacroix was so pleased with Mouilleron's work after his paintings that he said, 'If I were rich enough I would establish M. Mouilleron in my own house and would ask him to lithograph all my pictures. His lithograph from my "Duel between Faust and Valentine," has delicate qualities that I did not remember to have put in the original.' It is characteristic of those days that Géricault executed a hundred lithographs and just one single etching. Decamps made seventy-three lithographs and two etchings. Hippolyte Bellangé made five hundred lithographs and not any etchings that I am aware of; indeed, in the life of this painter lithography occupied exactly the same relative position that etching did in the life of Rembrandt. Since these men, and others with the same tastes, worked assiduously at lithography, what a change has come over the public taste!

Hardly anybody cares for lithography now. I have only known one man who possessed a collection of lithographs fairly illustrating the history of the art, and he sent it to be sold by auction.

Is there any reason in the nature of things why lithography should be despised as it is? Surely if such artists as Delacroix and Géricault approved of it the art must be sound and serviceable. It is simply chalk drawing made multipliable, and with the advantage over chalk on paper that small sharp lights are much more easily taken out. I suppose that the reason why lithography is disliked is because many lithographs have been printed long after the drawings had given way, and also because many other lithographs have been very badly printed, for it is an exceedingly delicate and difficult business to print properly from stone, and only first-rate workmen can do it as it ought to be done. Lastly, I suppose that lithography has been cheapened in the public estimation because it has been used for common purposes, such as the titles on the backs of music and the illustration of books of travel by amateurs; but surely we ought to be able to distinguish between the cheap, every-day application of an art and the valuable qualities inherent in the art itself. There is no reason why lithographs done by such men as Leighton and Poynter directly upon the stone should not be treasured afterwards amongst the classics of the graphic arts, if only they were printed with perfect skill and removed from the stone as soon as the slightest symptom of weakness could be detected. They would be more truly autographic than any photograph from a drawing.

Though lithography has almost died out as an original art, it is still employed for the interpretation of painting and drawing. It is wonderful that in this age of photographs a lithographer like Bargue should be able to hold his own, by sheer force of beautiful drawing, against the precision of the chemical processes. His drawings after Holbein are quite

enough to redeem lithography from the reproach of too great softness and flabbiness, for they are perfectly clear and firm. The delicate lithographs by J. Laurens, after Rosa Bonheur, also show great precision of drawing, and entirely avoid heaviness. 'La Famille,' in which a white-faced cow is licking a white calf, is an excellent example of moderation and elegance in workmanship, such as one only expects to find in an original drawing. 'Après-Diner,' by the same artists, a group of sheep lying down in a field, is a charming example of delicate sunny work in pale tones. Eugène Le Roux, in his lithographs from Charles Jacque, shows great knowledge of tone and texture, with a truth of minute detail which does not strike at first, but reveals itself when we are attentive enough to follow it. I do not hesitate to say that the lithographers have often approached very much more closely in drawing, light and shade, touch, and texture, to the modern painters whom they interpreted, than the old line-engravers approached to the workmanship of the old masters. There are many modern lithographs, not valued at their true worth, which strongly recall the styles of painting followed by the picturesque modern painters, such as Troyon, Decamps, Charles Jacque, and the Bonheurs, a service which deserves acknowledgment; and if the art of lithography displays good qualities of tone and texture, and of style in drawing, when it is employed in the imitation of paintings, it must have the same qualities when employed as an original art. We know, too, that it offers no executive impediment to the expression of thought, except that the chalk is not quite so convenient as that commonly used by artists.

It is unnecessary to compare lithography with nature, as I have done for the other arts, because it has no qualities peculiar to itself. Ink lithography is like pen drawing, and chalk lithography like ordinary chalk drawing on paper, except that it affords much greater facilities for taking out lights, which can be removed at once with a scraper.

Here may come to an end this examination of the Graphic Arts. It could not have been briefer without insufficiency, nor much longer without missing its object, which was to bring the comparison within the compass of a single volume. My own impression, after writing the book, is that all these arts have an equal interest, for when there are large means and powers the wise employment of them is the difficulty ; and when there are smaller means, as in the poorer and more restricted arts, then the demand upon the mental resources, both of the artist and the lover of art, becomes all the greater. The difficulty in oil painting is to use wisely, that is to say, in due subordination and moderation, the very various and extensive powers which chemistry has placed at the disposal of artists ; the difficulty in engraving is how to get sufficiently varied effects out of two such simple elements as the line and the dot, and with two such poor tools as the burin and the point. If, however, I had any preference, as a critic, for one art over another, I think perhaps it would be rather for an art in which the worker had done much with little, for then it seems as if mind were more, and matter less, in proportion. The material splendours of the Graphic Arts, the great gilded frames, the vast canvases, the expensive colours, the broad surfaces of wall, are scarcely better than encumbrances, since many of the finest thoughts and the tenderest emotions of great artists have been expressed with little labour, on a small scale, and in the very cheapest materials.

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